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Wolf, L.L.

1961 - 1964

Catalogue

#1835 - #3150

Calif., Ariz., New Mex.,
Texas, Mexico.

Ens. Peter Westcott
USS Widgeon (MSC-208)
F.P.O. San Francisco
Calif.

Chris - 6235826

#50 Plagiospiza [♂] Upper Rio Gavilera, ~ 6500 ft. ^{Dec. 14, 1955} Sierra Madre, Chih., Mex
humer. 23.1 ulna 24.6 carpus 13.6 femur 24.1
tibia 37.3 tarsus 26.2 syn. 12.6 pygo. 7.4

17.7g. [♂] 13 Feb. 1960
209 A. lassini Gardner Wash. Fair. W. of Hwy. 10 mi. W., Ariz.

17.0 17.4 9.8 17.0

26.0 18.7 14.8 6.6

sh. imm [♂] 17.7gm. 24 Oct. 1959
224 A. ruf. scotti Warner Canyon, 5 mi. W. by Ruby Road of Nogales, Ariz.

16.4 16.6 9.6 17.8

28.0 19.7 14.6 6.4



Larry C. Wolf
1961

Catalog

5 mi. SE. Woodland, Yolo Co., California

30 September

coll. W.C. Russell

1835 ? sk. imm. *Molothrus ater* gonads not visible

1836 ♂ sk. imm. *Molothrus ater* testes 10

2 1/2 mi. SE. Clear Lake, Colusa Co., California

28 October

1837 ? *Colaptes cafer* gonads not visible

Larry L. Wolf
1962

Catalog

2.5 mi. SW. Laurel, Santa Cruz Co., California.

24 February,

(found dead)

1838 ♀ Melanerpes formicivorus

ovary ♂

↓

1839 ♀ ad. sk. Certhia familiaris

ovary ♂ coll. R.B. Root

U.C. campus, Berkeley, Alameda Co., California

18 March, 1962

1840 ♂ ad sk. Dendroica auduboni

found dead

LLWolf
1962

Catalog

just east of Wells, Elko Co., Nevada

20 August

1838 Pica pica ♂ imm. (plumage) 00

Berkeley, Alameda Co., California

7 Sept.

1839 ♂ imm. Contopus richardsoni 00 10.6 gm.

Tomales Bay, Marin Co., California

4 Nov.

1840 ♀ Melanitta perspicillata found dead

L. Wolf
1963

Catalog

~~1877~~ ^{of Benson Hwy:}
0.6 mi. N. Wilmot Rd., Tucson, Pima Co., Arizona

✓ 1877 ♂ sk. ad. ^{24 June} *Aimophila carpalis* wt. 16.7 gm. 1 testis 6x5 mm. ^{molt on back} breast tail

→ = skeleton

23 ~~25~~ June

✓ 1879 ♂ imm. *Toxostoma curvirostre* — ^{testes black.} found dead on road.

→ 1879 ♂ ad. sk. *Aimophila carpalis* 17.1 gm. testes enlarged (preserved).

Molino Basin, 15 mi. NE. Tucson, Pima Co., Arizona

1880 ♂ *Calypte costae* 3.2 gm. testis 31 mm. ^{few egret feathers.} ^{imm. by plumage.}

1881 ♀ *Aimophila ruficeps* 18.0 gm. ^{largest ovum - 2 mm.} ^{ovary st. enl.} stage 3 brood patch.

1882 ♂ *Icterus parisorum* 39.1 gm. testis 9x5 mm. worn.

0.6 mi. N Benson Hwy., Wilmot Rd., Tucson, Pima Co., Arizona

1883 ♂ ad. sk. *Toxostoma curvirostre* 79.2 gm. ^{testes 14x10 mm.} ^{abdominal protuberance enlarged}

1884 ? ad. sk. *Vermivora luciae* 5.4 gm. very worn

1 mi. W. Ft. Huachuca, Cochise Co., Arizona

June ~~27~~ ²⁶

✓ 1885 ♀? juv. *Chondestes grammacus* 24.5 gm. slight fat.

June ~~28~~ ²⁷

1886 ♀ sk. ad. *Chondestes grammacus* 26.8 gm. ^{ovary enlarged largest ovum 2 mm.} ^{stage 2 brood patch}

1887 *Amphispiza bilineata* 12.0 gm.

✓ 1888 ♂ 7x4 mm ad. sk. *Aimophila betterii* 16.4 gm. ^{singing when collected} light body molt

L. Wolf

1963

Catalog

5 mi. S. Portal Cochise Co., Arizona Cave Creek Canyon-

June 28

1889	♂ ad. sk.	<i>Parus sclateri</i>	10.2 gm.	testis 1.5 mm.	worn.
1890	♀ ad. sk.	<i>Contopus sordidulus</i>	12.8 gm.	egg in oviduct	
1891	♀ ad. sk.	<i>Dendroica graciae</i>	7.9 gm.	Ovary	worn
1892	♂ ad. sk.	<i>Dendroica nigrescens</i>	8.6 gm.	testis 1 mm.	worn.
1893	♂	<i>Sceloporus platycercus</i>	3.6 gm.	insects in crop. testis - 2 mm.	mod. fat.
1894	♂	<i>Archilochus alexandri</i>	3.1 gm.	insects in crop. testis - 2.5 mm.	mod. fat.
1895	♂ sk. imm.	<i>Certhia familiaris</i>	7.2 gm.	testes - 1 mm.	insects in stomach.

15 mi. N. Rodeo, Hidalgo Co., New Mexico San Simon & Cicamega

June 29

1896	♂ sk. ad.	<i>Amphispiza bilineata</i>	13.0 gm.	testes 8x6 mm.	worn
✓ 1897	♀ sk. ad.	<i>Sturnella magna</i>	93.3 gm.	stage 3 brood patch ruptured follicles largest ovum - 3 mm.	
✓ 1898	♀ sk. imm.	<i>Toxostoma dorsalis</i>	57.6 gm.	juvenile stom. - fruits & insects.	

Guadalupe Canyon, Hidalgo Co., New Mexico

June 29

✓ 1899	♀	<i>Micvathene whitneyi</i>	40.3 gm.	stage 3-4 brood patch. ovary	
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June 30

✓ 1900	♂ ad. sk.	<i>Geiraca caerulea</i>	31.2 gm.	testis 8x6 mm.	
✓ 1901	♀ sk. imm.	<i>Thryomanes bewickii</i>	11.2 gm.	little fat.	
✓ 1902	♀ imm.	<i>Parus wallweberi</i>	10.7 gm.		
1903	♂	<i>Parus wallweberi</i>	11.7	testis 2 mm.	
1904	♀	<i>Parus inornatus</i>	17.0 gm.	0 ovary	
✓ 1905	♀ sk. ad.	<i>Myiarchus tuberculifer</i>	15.0 gm.	ovary minute	

L W & F
1963.

Catalog
Guadalupe Canyon, Cochise Co., ~~Ariz.~~ Arizona
June 30

- ✓ 1906 ♂ ad. sk. *Icterus cucullatus* 27.0 gm. t. 11x6 mm. slight fat.
1907 ♀ sk. ad. *Tyrannus vociferans* 42.0 gm. ovary ♂ flying ants. stomach w/

- July 1 mi. S. Animas, Hidalgo Co., New Mexico Clanton Canyon
July 1
✓ 1908 ♂ sk. ad. *Aimophila ruficeps* 19.6 gm. light molt on throat testis 9x5 mm cloaca enlarged
1909 ♂ sk. ad. *Aimophila ruficeps* 21.7 gm. right testis 8x7 mm cloacal protuberance enlarged.
1910 ♂ sk. ad. *Parus wollweberi* 10.9 gm. testis 2 mm molt. greenotes.
1911 ♂ ad. sk. *Psaltiriparus minimus* 6.3 gm. testis 3.5x2 mm irises brown.

Redrock, Grant Co., New Mexico

July 2

- 1912 ♂ ad. sk. *Richmondia cardinalis* 48.2 gm. testis 11x6 mm.
✓ 1913 ♂ sk. ad. *Richmondia cardinalis* 45.2 gm. testis 10x6 mm.
✓ 1914 ? imm. sk. *Pipilo aberti* 51.0 gm. general molt.
1915 ♀ ad. sk. *Pipilo aberti* mod. fat. 51.8 gm. stage 3 brood patch at least 2 ruptured follicles
✓ 1916 ♂ *Coccyzus americana* 57.4 gm. testis 9x5 mm stomach w/ insects.
✓ 1917 ♀ sk. ad. *Molothrus ater* 33.1 gm. 2 ruptured follicles largest egg in oviduct. ovum - Pan.
1918 ♂ *Dendroica petechia* 8.5 gm. testes 4x3 mm.
(1919) ♂ ad. sk. *Empidonax traillii* 13.2 gm. testis 9x5 mm w. 71 mm slight fat t. 60 mm.

Signal Mountain, Grant Co., New Mexico

July 2

- 1920 ♂ ad. sk. *Cardellina rubrifrons* 10.0 gm. testes 2 mm.
1921 ♀ ad. sk. *Parus gambelii* 10.2 gm. ovary ♂
1922 ♂ ad. sk. *Junco caniceps* 21.1 gm. testes 7x5 mm

L. W. H.
1963

Catalog

mi. NW Silver City, Grant Co., New Mexico

July 4

✓ 1923	♂ ad. sk.	<i>Amophila ruficeps</i>	18.5 gm.	cloacal protuberance enlarged. testis 11x6 mm
1924	♀ ad. sk.	<i>Amophila ruficeps</i>	18.5 gm.	largest ovum 2 mm.
✓ 1925	♀ imm. sk.	<i>Parus wollweberi</i>	9.7 gm.	slight fat
1926	♂ ad. sk.	<i>Spizella atrogularis</i>	13.0 gm.	testes enlarged.

6 mi. W. Silver City, Grant Co., New Mexico

July 5

1927	♂ sk. ad.	<i>Spizella passerina</i>	11.8 gm.	cloacal protub. enlarged. testis 8 mm
1928	♂ sk. ad.	<i>Amophila ruficeps</i>	20.0 gm.	testis 10x6 mm. cloacal protuberance enlarged
1929	♀ ad. sk.	<i>Myiarchus cinerascens</i>	25.8 gm.	ovary ③

20 mi. NW Cliff, Grant Co., New Mexico

Rain Creek

July 5

1930	♂ sk. ad.	<i>Amophila ruficeps</i>	19.0 gm.	cloacal protub. enlarged. testis 12x6 mm slight fat.
(1931)	♂ sk. ad.	<i>Amophila ruficeps</i>	22.6 gm.	cloacal protub. enlarged. testis 12x6 mm slight fat.
1932	♀ sk. ad.	<i>Amophila ruficeps</i>	23.7 gm.	stage 1 brood patch also 3 mm. ova - 10, 8, 5 mm. slight fat
1933	♀ sk. ad.	<i>Amophila ruficeps</i>	18.7 gm.	at least 2 ruptured follicles laid. largest ovum - 3 mm stage 1 or 2 patch.
1934	♂ sk. ad.	<i>Spizella atrogularis</i>	14.6 gm.	cloacal protub. enlarged testis 8x6 mm. slight fat.
1935	♂ sk. ad.	<i>Carpodacus mexicanus</i>	19.2 gm.	juvenile plumage testes small seeds in crop.

8 mi. W. Cliff, Grant Co., New Mexico,

Gila River

July 6

1936	♂ sk. ad.	<i>Amphispiza bilineata</i>	13.4 gm.	cloacal protub. enlarged. testis - 7x6 mm. molt.
(1937)	♂ sk. ad.	<i>Amphispiza bilineata</i>	14.3 gm.	cloacal protub. enlarged. testis 7x6 mm. molt.
✓ 1938	♂ sk. imm.	<i>Amphispiza bilineata</i>	13.6 gm.	juvenile plumage testes 00

LH Wolf

1963

Catalog

14 mi. N. Separ, Grant Co., New Mexico

July 7

1939	♂ sk. ad.	<i>Aimophila cassinii</i>	19.5 gm.	cloacal protub. enlarged testis testis 6 mm mod. fat.
1940	♂ sk. ad.	<i>Aimophila cassinii</i>	17.9 gm.	cloacal protub. enlarged testis 8 mm.

8 mi. NW Lordsburg, Hidalgo Co., New Mexico

July 8

1941	♂ ad. sk.	<i>Aimophila cassinii</i>	17.2 gm.	cloacal protub. enlarged testis 8 x 6 mm.
1942	♂ ad. sk.	<i>Aimophila cassinii</i>	17.2 gm.	cloacal protub. enlarged testis - 8 x 5 mm.
1943	♂ ad. sk.	<i>Aimophila cassinii</i>	16.8 gm.	cloacal protub. enlarged testes 8 x 5 5 x 5 mm. ^{right} as on.
1944	♂ ad. sk.	<i>Aimophila cassinii</i>	17.4 gm.	cloacal protub. enlarged testes 7 x 5 mm 5 x 5 mm
1945	♂ ad. sk.	<i>Aimophila cassinii</i>	18.7 gm.	cloacal protub. enlarged testis 9 x 5 mm

Graham Mts., 14 mi. SW Safford, Graham Co., Arizona

July 8

✓ 1946	♀ sk. imm.	<i>Junco phaeonotus</i>	juvenile	18.5 gm. mod. fat.
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July 9

1947	♂	<i>Geococcyx graminea</i>	52.7 gm.	testis 4 mm.
1948	♀	<i>Eugenes fulgens</i>	6.5 gm.	ovary 3
1949	♀ sk. ad.	<i>Junco phaeonotus</i>	18.9 gm.	^{largest} ovum - 2 mm
✓ 1950	♂ sk. imm.	<i>Zenaidura macroura</i>	11.6 gm.	testis 6 x 3 mm.
✓ 1951	♀ sk. ad.	<i>Troglodytes aedon</i>	12.8 gm.	oviduct enlarged largest ovum - 3 mm.
✓ 1952	♂ sk. ad.	<i>Troglodytes aedon</i>	9.3 gm.	testis 8 x 4 mm.

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1963

Catalog

Lady Bug Saddle, Graham Mts. Graham Co., Arizona

July 9

- | | | | |
|-------------------|------------------------------|----------|-------------------|
| ✓ 1953 ♀ sk. imm. | <i>Vermivora virginiae</i> | 7.8 gm. | molting - |
| ✓ 1954 ♂ | <i>Cardellina rubrifrons</i> | 8.9 gm. | molt faster than. |
| ✓ 1955 ♀? imm. | <i>Dendrocopos villosus</i> | 50.0 gm. | ' |

LWJ/f
1963

Catalog

31 mi. N. Magdalena, Sonora, Mexico

July 11

cloacal protub. enlarged.

13.3 gm. testis 8x5 mm

1952

♂ sk. ad.

Amphispiza bilineata

27 mi. N. El Oasis, Sonora, Mexico

July 11

1957

♀ sk. ad.

Amorphila carpalis

14.5 gm.

ovary ^{6.1} 6.1

1958

♂ sk. ad.

Amorphila carpalis

14.1 gm.

testes enlarged.
primary oocyte

1959

♂ sk. ad.

Amorphila carpalis

14.1 gm.

testis 6x4 mm.

18 mi. N. El Oasis, Sonora, Mexico

July 11

✓ 1960

♀ sk. ad.

Amorphila carpalis

16.9 gm.

light body molt, slight fat.

ovary slightly enlarged.

✓ 1961

♂ sk. ad.

Amorphila carpalis

15.9 gm.

light body molt.

testis 6x4 mm. slight fat.

✓ 1962

♂ sk. ad.

Amorphila carpalis

15.2 gm.

testis 6x4 mm.

primary molt. Stage 4 b. patch.

1963

♀ sk. ad.

Myiarchus cinerascens

27.7 gm.

ovary small < 1 mm.

July 12

pair with #1965

humeral + neck molt slight fat.

✓ 1964

♂ sk. ad.

Amorphila carpalis

15.7 gm.

testis 7x5 mm.

largest ovum - 9 mm.

1965

♀ sk. ad.

Amorphila carpalis

18.8 gm.

oviduct enlarged stage 16.p.

pair with #1967

light molt, slight fat.

1966

♀ sk. ad.

Amorphila carpalis

15.3 gm.

ovary sl. enlarged.

1967

♂ sk. ad.

Amorphila carpalis

14.5 gm.

testis 6x4 mm. slight fat.

1968

?

Amorphila carpalis

14.5 gm.

slight fat.

1969

♂ sk. ad.

Amorphila carpalis

14.3 gm.

testis 5x3 mm.

molt.

1970

Amorphila carpalis

15.0 gm.

alcoholic

1971

♂ sk. ad.

Amorphila carpalis

14.5 gm.

testis enlarged tail molt.

1972

♀ sk. ad.

Pyrrhuloxia sinuata

38.0 gm.

ovary 1-2 mm

Chway

1963

Catalog

20 mi. S. Mazatan, Sonora, Mexico km. 114

~~1972~~

July 13

✓ 1973	♂	Cyananthus latirostris	3.2 gm.	testes 2x1 mm. cloacal prot. enlarged.
✓ 1974	♂ sk. ad.	Passerina versicolor	12.5 gm.	testes 9x5 mm. cloacal protub. enlarged.
✓ 1975	♂	Aimophila quinquestriata	19.3 gm.	testes enlarged. cloacal protub. enlarged.
✓ 1976	♂ ad. sk.	Aimophila quinquestriata	20.0 gm.	testes 9x5 mm. 2° molting. cloacal prot. enlarged.
✓ 1977	♂ sk. ad.	Aimophila quinquestriata	18.8 gm.	testes 12 mm. cloacal protub. enlarged.
✓ 1978	♂ sk. ad.	Aimophila quinquestriata	18.6 gm.	testes enlarged. general body & tail molt.
✓ 1979	♀ ad.	Lophortyx douglasii	169.6 gm.	largest ovum - 15 mm. one gray one white
✓ 1980	♂	Lophortyx douglasii	150.0 gm.	testes 8x4 mm 7x4 mm

11.5 mi. E. Mazatan, Sonora, Mexico km. 101 40860.5 40872

July 13

✓ 1981	♂ sk. ad.	Aimophila carpalis	14.6 gm.	testes 6x4 mm.
✓ 1982	♀ sk. ad.	Aimophila carpalis	15.0 gm.	largest ovum - 2 mm. stage 1 brood patch.
✓ 1983	♂ sk. ad.	Aimophila carpalis	14.2 gm.	testes 6x4 mm slight fat. cloacal prot. enlarged.
✓ 1984	♂ sk. ad.	Aimophila quinquestriata	19.6 gm.	testes 9x6 mm. cloacal prot. partly enlarged worn
✓ 1985	♂ sk. ad.	Aimophila quinquestriata	19.3 gm.	8x5 mm 6x6 mm testes. cloacal protub. enlarged. worn
✓ 1986	♂ sk. ad.	Aimophila quinquestriata	19.8 gm.	testes 7x5 mm. 6x4 mm. stage 1 brood patch egg w/ shell, soft.
✓ 1987	♀ sk. ad.	Aimophila quinquestriata	23.3 gm.	

20 mi E Mazatan, Sonora, Mexico km. 114

July 14

✓ 1988	♂ sk. ad.	Passerina versicolor	12.5 gm.	testes 11x8 mm, 1 mm. 11 body fresh. near 1990 stage 1 brood patch
✓ 1989	♀ sk. ad.	Aimophila carpalis	15.2 gm.	1 imp. follicle largest ovum - 3 mm. cl. protub. enlarged.
✓ 1990	♂ sk. ad.	Aimophila carpalis	14.5 gm.	testes 6x4 slight fat. body plumage fresh.

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1963

Catalog

Rio Yaqui, 7.5 mi. S. Ciudad Obregon, Sonora, Mexico

~~41103.5~~ 41103.5

July 15

- ✓ 1991 ♂ sk. imm. *Thryothorus felix* 13.4 gm. testis 2 mm. ~~41103.5~~
- ✓ 1992 ♂ sk. imm. *Toxostoma curvirostre* 62.5 gm. testes 2 mm. juvenile

27 mi. S. Ciudad Obregon, Sonora, Mexico Km. 1812 July 15

- ✓ 1993 ♂ sk. ad. *Aimophila carpalis* 15.2 gm. cl. prot. enlarged. body molt slight fat. testis 7x5 mm. pair c 1994
- ✓ 1994 ♀ sk. ad. *Aimophila carpalis* 16.4 gm. body molt slight fat. stage 1-2 brood patch. 4 rupt. follicles largest ovum 2 mm.
- ✓ 1995 ♂ sk. ad. *Aimophila carpalis* 14.4 gm. testes 6x4 mm. molt on tail + breast. nest w/ 2 eggs slight fat.
- 1996 ♀ sk. ad. *Aimophila carpalis* 16.0 gm. egg in oviduct light molt. plumage fresh cl. prot. sl. enl.
- 1997 ♂ sk. ad. *Aimophila carpalis* 15.2 gm. testes 6x5 mm. light body molt cl. prot. enlarged epibulge.
- 1998 ♂ sk. ad. *Aimophila carpalis* 13.5 gm. testes ?

July 16

stage 4 brood patch

- 1999 ♂ *Centurus uropygialis* 65.4 gm. testes 3 mm. 1° + covert molt. cl. prot. sl. enl. body + 2° covert molt.
- ✓ 2000 ♂ sk. ad. *Aimophila carpalis* 14.5 gm. testis 6x4 mm. also tail. cl. prot. enlarged body fresh.
- 2001 ♂ sk. ad. *Aimophila carpalis* 13.7 gm. testis 7x5 mm. back molt middle rectrices very worn body fresh.
- 2002 ♂ sk. ad. *Aimophila carpalis* 14.0 gm. testis 6x4 mm. cl. prot. sl. enlarged. cl. prot. enlarged. back molt.
- 2003 ♂ sk. ad. *Aimophila carpalis* 14.6 gm. testes 6-7 mm. extensive brood patch egg soft shell no oviduct.
- 2004 ♀ sk. ad. *Aimophila carpalis* 17.1 gm. 4 ruptured follicles. body fresh tail worn pair c 2004 tail worn. molt on up. back over old.
- 2005 ♂ sk. ad. *Aimophila carpalis* 16.4 gm. ventrum and cl. prot. sl. enl. testis 6x4 mm. pair c 2007
- ✓ 2006 ♂ sk. ad. *Aimophila carpalis* 12.6 gm. testis 7x4 mm. brood patch light body molt.
- ✓ 2007 ♀ sk. ad. *Aimophila carpalis* 15.4 gm. largest ovum 3 mm.

LL Wolf

1963

Catalog

27 mi. S. Ciudad Obregon, Sonora, Mexico.

July 17

✓ 2008	♀ sk. ad.	<i>Amegilla flaviceps</i>	6.5 gm.	slight fat. ovary @ late brood patch. cl. prot. sl. enl.
✓ 2009	♂ sk. ad.	<i>Amegilla carpalis</i>	14.4 gm.	slight fat. testis 7x5 mm. light adult
✓ 2010	♂ sk. ad.	<i>Amegilla carpalis</i>	15.0 gm.	pair 2011 testis 7 mm. cl. prot. enlarged slight fat stage 1 brood patch
2011	♀ sk. ad.	<i>Amegilla carpalis</i>	15.5 gm.	largest ovum - 3 mm body fresh
2012		<i>Amegilla carpalis</i>	14.7 gm.	
2013	♂ sk. ad.	<i>Amegilla carpalis</i>	14.2 gm.	cl. prot. sl. enl. testis 5x3 mm. slight fat.
2014	♂ sk. ad.	<i>Amegilla carpalis</i>	17.5 gm.	cl. prot. enl. slight fat. testis 7x5 mm. body fresh

9 mi. N. Guadalupe, Sinaloa, Mexico

July 18

✓ 2015	♀ sk. ad.	<i>Tyrannus crassirostris</i>	65.7 gm.	edematous brood patch largest ovum - 2 mm. cicada + beetles in stomach. pair 2017 cl. prot. sl. enlarged.
✓ 2016	♂ ad. sk.	<i>Amegilla carpalis</i>	13.3 gm.	testis 7x4 mm. brood patch body fresh wing still old
2017	♀ sk. ad.	<i>Amegilla carpalis</i>	15.3 gm.	ova - 7, 5, 3 mm. slight fat body molt cl. prot. sl. enl.
✓ 2018	♂ ad. sk.	<i>Amegilla carpalis</i>	15.7 gm.	testis 6x5 mm.
✓ 2019	♂ ad. sk.	<i>Amegilla carpalis</i>	14.5 gm.	testis 6x5 mm. cl. prot. sl. enl.
✓ 2020	♂ sk. ad.	<i>Amegilla carpalis</i>	14.4 gm.	testis 6x5 mm. body new slight fat.
2021	♀ sk. ad.	<i>Amegilla carpalis</i>	14.6 gm.	ova 4 mm. 2 mm. brood patches body fresh; rectrix fresh.
2022	♂ sk. ad.	<i>Amegilla carpalis</i>	15.1 gm.	testis 7 mm. cl. prot. sl. enl. body new slight fat.
2023	♀ sk. ad.	<i>Amegilla carpalis</i>	15.4 gm.	ovary slightly enlarged brood patches #1 + #2 rectrices new - 20 new body new
2024	♂ sk. ad.	<i>Amegilla carpalis</i>	16.3 gm.	testis 6x4 mm.

5 mi. N. Elota, Sinaloa, Mexico

July 19

✓ 2025	♂ byplumen	<i>Helioaster constans</i>		hit by car. body molt.
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L. L. Wolf
1963

Catalog

9 mi. S. Santa Lucia, Sinaloa, Mexico

El Batel 5700 ± ft.

July 20

2026	♂ sk. ad.	<i>Vermivora superciliosa</i>	8.8 gm.	testes 1 mm.	to ann 2
2027	skel. ♂ sk. ad.	<i>Spinus notatus</i>	11.8 gm.	testis 4.5 x 3.5 mm.	
✓ 2028	♀ sk. imm.	<i>Aimophila ruficeps</i>	18.8 gm.	p. j. molt.	ovary 0
✓ 2029	♂ sk. ad.	<i>Tanager musica</i>	16.9 gm.	testis 8 x 5 mm.	little ventral molt.
✓ 2030	♂ sk. ad.	<i>Piranga erythrocephala</i>	19.4 gm.	testes 2 mm.	
✓ 2031	♀ sk. imm.	<i>Lepidocolaptes leucogaster</i>	33.9 gm.	ovary 0	body molt. p. j. ? worn.
2032	skel. ♂ sk. ad.	<i>Myadestes obscurus</i>	41.1 gm.	testis 6 mm.	wing + body molt, also tail
✓ 2033	♂	<i>Dendrocopos arizonae</i>	43.0 gm.	testes 1.5 mm.	caught in net.
✓ 2034	♀	<i>Dendrocopos arizonae</i>	34.7 gm.	ovary 0	some molt. cl. prot. sh. enlarged.
2035	skel. ♂ sk. ad.	<i>Melospiza kieneri</i>	39.4 gm.	testis 9 x 5 mm.	pair in 2035.
✓ 2036	♀ sk. ad.	<i>Melospiza kieneri</i>	39.6 gm.	ovary 0	brood patch edematous brood patch
✓ 2037	♀ sk. ad.	<i>Melanotis caerulescens</i>	72.0 gm.	ovary 0	Stomach & insects + sowbugs.
✓ 2038	♀	<i>Streptoprocne semicollaris</i>	167.8 gm.	ovary 0	Stomach & insects. molting inner 1°.
2039	skel. ♂	<i>Streptoprocne semicollaris</i>	190.0 gm.	testes 5 mm.	mod. fat. found on ground by native boy.
✓ 2040	♂ sk. imm.	<i>Vermivora superciliosa</i>	7.5 gm.	juvenile testes so	mod. fat. skull & frontal windows.
✓ 2041	♂ sk. imm.	<i>Empidonax difficilis</i>	13.6 gm.	testis 3 mm.	

July 21

✓ 2042	♂ sk. ad.	<i>Vermivora superciliosa</i>	8.8 gm.	testes 2 mm.	
✓ 2043	♀ sk. imm.	<i>Catherus aurantirostris</i>	24.5 gm.	ovary 0	fledgling. taken in net.
✓ 2044	skel. ♂ sk. ad.	<i>Aimophila ruficeps</i>	17.5 gm.	testis 9 x 6 mm.	cl. prot. enlarged.
2045	♂ sk. ad.	<i>Catherus aurantirostris</i>	26.9 gm.	testis 8 x 6 mm.	worn.
2046	skel. ♂ sk. ad.	<i>Melanotis caerulescens</i>	66.8 gm.	testis 8 x 4 mm.	




LL Wolf
1963

Catalog

9 mi. E. Santa Lucia, Sinaloa, Mexico

21 Batel 5100'±

July 21


skel. 2047	♀ sk. ad.	Cyanocorax dickeyi	168.6 gm.	ovary  molting.
✓ 2048	♀ sk. imm.	Cyanocorax dickeyi	164.7 gm.	ovary  stomach - insects & grit.
✓ 2049	? sk. imm.	Cyanocorax dickeyi	164 165.6 gm.	gape cream colored. brood patch.
✓ 2050	♀ sk. ad.	Myiagajis viridicata	—	ovary  caught in net.
✓ 2051	♂ sk. ad.	Catharus aurantiirostris	25.4 gm.	testes 11x6 mm cl. prot. st. enl.
2052 ^{skel.}	♂ sk. ad.	Myiooborus miniatus	8.3 gm.	testis 7x5 mm cl. prot. enlarged. stage 3 brood patch
✓ 2053	♀ sk. ad.	Vireo hypochryseus	14.7 gm.	largest ova - 1 mm.

July 22

skel. 2054	♀ sk. ad.	Melanotis caerulescens	68.1 gm.	ovary  brood patch
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26 mi. N. Zucumanapa, Sinaloa, Mexico

July 22

skel. 2055	♀ sk. ad.	Cassidix melanirostris	65.5 gm.	ovary  stage 3 brood patch
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12 mi. N. Tepic, Nayarit

July 22

skel. 2056	♂ sk. ad.	Aimophila borderi.	22.5 gm.	singing when collected. testes 7x4 mm cl. prot. enl.
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7 mi. N. Tepic, Nayarit

July 23

skel. 2057		Aimophila borderi	20.1 gm.	
skel. 2058	♂ sk. ad.	Aimophila borderi	23.2 gm.	cl. prot. enl. testes 10x6, 6x4 mm.
skel. 2059	♂ sk. ad.	Aimophila borderi	20.9 gm.	cl. prot. enl. testes 8x6 mm.
✓ 2060	♂ sk. ad.	Aimophila borderi	21.7 gm.	testis 9x5 mm. cl. prot. enl. cl. prot. enl.
✓ 2061	♂ sk. ad.	Aimophila borderi	22.0 gm.	testis 10x5 mm. right back molt.

LL Wolf

1963

Catalog

7 mi. N. Tepic, Nayarit, Mexico

71.5

July 23

- shd. 2062 ♂ sk. ad. *Basileuterus rufifrons* 10.9 gm. testes 8x4, 5x3 mm. ^{2063, 2064} worn
- ✓ 2063 ♀ sk. imm. *Basileuterus rufifrons* 8.9 gm.
- ✓ 2064 ♀ sk. imm. *Basileuterus rufifrons* 9.8 gm. ovary 0 p.f. molt.

80 mi. SE. Tepic, Nayarit, Mexico

July 23

- ✓ 2065 ♀ sk. ad. *Aimophila borderii* 23.5 gm. brood patch 3 ruptured follicles ovum - 3 mm.
- ✓ 2066 ♂ sk. ad. *Aimophila borderii* 22.6 gm. testis cl. prot. enl.

35 mi. NE Apatlan, Jalisco

July 24

- shd. 2067 ♂ *Aimophila ruficauda* 30.4 gm.

6 mi. SW. La Huerta, Jalisco

July 25

- ✓ 2068 ♂ sk. not comp. oss. *Aimophila ruficauda* 28.1 gm. testes ^{rt. 6x5 mm.} left 6x4 mm. plumage fresh.
- (2069) ♀ *Aimophila ruficauda* 28.3 gm. ^{slight fat} largest ovum - 2 mm.
- (2070) ♂ *Aimophila ruficauda* 27.3 gm. testis 6x4 mm. slight fat
- ✓ 2071 ♂ sk. ad. *Thryothorus sicalis* 17.2 gm. testis 9x4 mm. ^{collected July 24, 1963.} cl. prot. sl. enl.
- (2072) ♂ *Cassidix mexicanus* 96.4 gm. testes 5 mm.


LLWOLF

1963


Catalog

6 mi. SW. La Huerta, Jalisco, Mexico km. 1114

July 26

✓ 2073	♂ sk. ad.	<i>Aimophila ruficauda</i>	27.3 gm. testis 7x4 mm. little back molt. ova broken by shot. stage 1 brood patch.
skel.			
2074	♀	<i>Aimophila ruficauda</i>	30.2 gm. ovary enl. slight fat.
skel.			
2075	♂ sk. imm.	<i>Aimophila ruficauda</i>	28.3 gm. testis 5.5x4 mm. slight fat. slight fat
skel.			
2076	♂ sk. imm.	<i>Aimophila ruficauda</i>	29.5 gm. testis 7x4.5 mm. slight fat
skel.			
2077	♂ sk. imm.	<i>Aimophila ruficauda</i>	27.8 gm. testes 5x4 mm. slight fat
skel.			
2078	♂ sk. imm.	<i>Aimophila ruficauda</i>	27.2 gm. testis 6x4 mm. slight fat.
skel.			
2079	♂ sk. imm.	<i>Aimophila ruficauda</i>	29.7 gm. testis 5x4 mm. edematous brood patch.
✓ 2080	♀ sk. ad.	<i>Aimophila ruficauda</i>	26.9 gm. ovary sl. enl. largest ovum - 2 mm. late brood patch?
skel.			
2081	♀	<i>Trogon citreolus</i>	65.0 gm. largest ovum - 2 mm.
skel.			
2082	♀	<i>Centurus chrysogenys</i>	largest ovum - 2 mm. 64.4 gm. ovary sl. enlarged.
skel.			
2083	♀	<i>Aimophila ruficauda</i>	27.6 gm. ovary  slight fat.

July 25

skel.			
2084	♂ sk. ad.	<i>Cassiculus melanicterus</i>	95.8 gm. testis 10x4 mm. molting
skel.			
2085	♀ sk. ad.	<i>Cassiculus melanicterus</i>	67.5 gm. ovary  molting
skel.			
2086	♂ sk. ad.	<i>Turdus rufopalliatus</i>	72.6 gm. testis 10x7 mm.

3 mi. S. Manzanillo, Colima, Mexico

July 26

✓ 2087	♂ sk. imm.	<i>Cissilopha san-blasi</i>	117.3 gm. testes 2 mm. p. j. molt.
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W. W. H.
1963

Catalog


17 mi. NW. Manzanillo, Colima, Mexico

July 27

- skel
2088 ♀ sk. imm. *Aimophila ruficauda* 26.0 gm. largest ova - 1 mm. no brood patch
- skel
2089 ♂ sk. imm. *Aimophila ruficauda* 30.3 gm. testis ~ 6 mm.
- 2090 ♀ sk. not c. oss. *Aimophila ruficauda* 28.2 gm. largest ovum - 2 mm.
- 2091 ♂ sk. imm. *Aimophila ruficauda* 31.5 gm. testis ~ 5 mm. light back molt.


6 mi. SW. La Huerta, Jalisco, Mexico

July 27

- ✓ 2092 ♀ sk. ^{imm.} *Aimophila ruficauda* 26.6 gm. ovary  light body molt


3 mi. NE La Huerta, Jalisco, Mexico

July 27

- ✓ 2093 ♂ sk. ad. *Aimophila ruficauda* 29.0 gm. testis 7 x 4 mm.
- ✓ 2094 ♂ sk. imm. *Aimophila ruficauda* 29.0 gm. testis 7 x 4 mm  not ossified

9 mi. SW. Autlan, Jalisco

July 27

- ✓ 2095 ♂ sk. ad. *Aimophila rufescens* 39.7 gm. testis 10 x 7 mm. cl. prot. enlarged - back molt
- ✓ 2096 ♂ sk. ad. *Aimophila rufescens* 40.4 gm. testis 11 x 7 mm. cl. prot. enl. back molt
- 2097 ^{skel} ♀ sk. ad. *Aimophila rufescens* 35.6 gm. largest ova - 2 mm. brood patch
- 2098 skel ♂ sk. ad. *Aimophila rufescens* 38.1 gm. testis 10 x 5 mm. cl. prot. enl.
- 2099 ♀ sk. ad. *Melospiza cinerea* 33.2 gm. ovary  brood patch.

LLW:K

1963

Catalog


10 mi NE. Autlan, Jalisco

July 27

- 2180 ♀ *Colinus virginianus* 165.6 gm. (largest ova - 3 mm. tight body molt.
- ✓ 2100 ♂ *Colinus virginianus* 154.2 gm. testis 15 x 6 mm.

8 mi. NE. Autlan, Jalisco, Mexico

July 28

- skel. 2102 ♂ *Amophila humeralis* 27.0 gm. testis 6 mm.
- ✓ 2103 ♂ sk. imm. *Amophila humeralis* 24.7 gm. testis 6 x 5 mm.  not accis. cl. prot. ant.
- skel. 2104 ♂ *Amophila humeralis* 27.5 gm. testes 16.8 x 6 cl. prot. n. cul.
- skel. 2105 ♂ *Amophila humeralis* 26.8 gm. testis 6 x 4 body fresh
- skel. 2106 ♀ *Amophila humeralis* 22.7 gm. body plumage fresh. also seen 4 largest ova - 1 mm. rectrices.
- skel. 2107 ♂ sk. ad. *Amophila ruficauda* 31.1 gm. testes 7 x 5
- skel. 2108 ♀ sk. imm. *Amophila ruficauda* 26.1 gm. ova < 1 mm. no brood patch.
- skel. 2109 ♀ sk. imm. *Amophila ruficauda* 29.2 gm. ovary granular testes
- skel. 2110 ♂ sk. ad. *Amophila ruficauda* 27.4 gm. 6 x 4, 8 x 4
- ✓ 2111 ♂ sk. imm. *Amophila ruficauda* 29.5 gm. testis ~ 6 mm. body molt
- ✓ 2112 ♂ sk. ad. *Amophila ruficauda* 30.4 gm. testis 8 x 5 mm
- ✓ 2113 ♂ sk. ad. *Amophila ruficauda* 31.4 gm. testis 8 x 5 mm.

31 mi. NE. Autlan, Jalisco

July 28

- skel. 2114 ♂ sk. ad. *Amophila botteri* 20.4 gm. cl. prot. cul. testes 9 x 6 mm. worn.

L2W018
1963

Catalog

Tecolotlan, Jalisco (NE. Autlan on Mex. 80)

July 28

skel 2115	♂	<i>Aimophila ruficauda</i>	26.1	l. 54 x 4 mm.
2116	♂	<i>Aimophila ruficauda</i>	30.0 gm.	
✓ 2117	♂ sk. ad.	<i>Aimophila ruficauda</i>	28.9 gm.	testes 4 x 6 mm.

32 km. NNE Guadalajara, Jalisco

July 30

✓ 2118	♀ sk. ad	<i>Aimophila rufescens</i>	35.3 gm.	not yet breeding largest ovum - 3 mm. pair c 2119 8? worn
skel 2119	♂	<i>Aimophila rufescens</i>	39.0 gm.	cl. prot. enl. testes 9 x 6 mm

30 mi. NNE Guadalajara, Jalisco

July 30

skel 2120	♂ sk. ad.	<i>Aimophila betherii</i>	24.5 gm.	testis 10 x 5 mm. worn
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9.5 mi. N. Ixtlahuacan del Rio, Jalisco

July 31

✓ 2121	♀ sk. imm.	<i>Sialia sialis</i>	28.3 gm.	ovary 0 juvenile cl. prot. enlarged
2122	♂ sk. ad.	<i>Aimophila ruficeps</i>	20.0 gm.	testes 8 x 6 mm. worn
✓ 2123	♂ sk. imm.	<i>Dendroica graciae</i>	8.2 gm.	testes 0 p. f. molt.
✓ 2124	♂ sk. ad.	<i>Psaltiriparus melanotis</i>	5.8 gm.	testis 4 x 3 mm. body molt.
2125	♀ sk. ad.	<i>Eupidonax fulvifrons</i>	7.8 gm.	ovary 0 body molt pair with 2125
✓ 2126	♂ sk. ad.	<i>Eupidonax fulvifrons</i>	8.4 gm.	testis 3 mm. body molt

Lh Wolf
1963

Catalog


5 mi. ⁵ Ixtlahuacan del Rio, Jalisco

July 31

- ✓ ~~skel.~~ 2127 ♂ sk. ad. *Amophila ruficeps* 23.3gm. cl. prot. cul. slight fat. stomach \bar{c} testis 9x7mm. 100% vegetable.
skel. 2128 ♂ *Amophila ruficeps* 22.5gm. cl. prot. cul. worn stomach \bar{c} 30mm caterpillars + seeds.

9 mi. ⁵ Ixtlahuacan del Rio, Jalisco

July 31

- ✓ 2129 ♂ sk. ad. *Amophila quinguestriata* 21.2gm. cl. prot. cul. slight fat. testis 9x6mm.  not ossified

10 mi. ⁵ Ixtlahuacan del Rio, Jalisco

~~Jan~~ July 31

- ✓ 2130 ♂ sk. ad. *Amophila rufescens* 38.3gm. cl. prot. cul. stomach \bar{c} testes 8x5mm. 100% vegetable.

20 mi. SE. Morelia, Michoacan

August 2

- skel 2131 ♂ sk. ad. *Amophila rufescens* 40.2gm. cl. prot. cul. testis 10x6mm. worn
skel 2132 ♂ *Amazilia beryllina* 4.6gm. testis 3mm. plumage fresh gonad destroyed.
✓ 2133 ♀ ? *Tilmatura dupontii* 2.5gm. enlarged oviduct. containing \bar{c} 2134
✓ 2134 ♂ *Tilmatura dupontii* 2.0gm. testis 2mm.
skel 2135 ♂ sk. ad. *Campylorhynchus jocosus* 27.5gm. testis 6mm. worn.
✓ 2136 ♂ sk. ad. *Spinus notatus* 11.0gm. testis 6x4mm. slight fat. stomach \bar{c} berries.
✓ 2137 ♂ sk. imm. *Turdus assimilis* 85.0gm. testes 2mm. black. stomach \bar{c} nutlike berries.
✓ 2138 ♂ sk. imm. *Ptilogonys cinereus* 34.4gm. testis 1mm. p.j. molt heavy molt.
skel 2139 ♀ sk. ad. *Vireo solitarius* 20.5gm. ovary \bar{c} brood patch. white seeds in crop.
skel. 2140 ♂ sk. ad. *Spinus notatus* 11.3gm. testes enlarged.



LLWoff

1963

Catalog

20 mi. SE. Morelia, Michoacan


August 3

✓ 2141	♀ sk imm.	<i>Aimophila rufescens</i>	38.1 gm.	edematous brood patch largest ovum - 3mm cl. prot. wld	
✓ 2142	♂ sk. ad	<i>Aimophila rufescens</i>	40.3 gm.	testis 8x5 mm. light body molt. edematous brood patch	
2143	♀	<i>Aimophila rufescens</i>	40.7 gm.	ovary  cl. prot. wld.	back + flank molt.
2144	♂	<i>Aimophila rufescens</i>	38.5 gm.	testes 9x6 mm. stomach c lizard remains.	
✓ 2145	♂	<i>Glaucidium gronni</i>	52.0 gm.	testes 7mm. heavy molt	

9 mi. E. Cuernavaca, Morelos,

Cañon de Lobos

August 4

✓ 2146	♀ sk. imm.	<i>Aechmophorus mexicanus</i>	11.5 gm.	ovary B nestling. iris brown	
✓ 2147	♀ sk. imm.	<i>Aechmophorus mexicanus</i>	11.3 gm.	ovary B gape orange Feeding 2146 + 2147.	nestling
✓ 2148	♀	<i>Aechmophorus mexicanus</i>	11.4 gm.	ovary B brood patch. stage 4 brood patch molting.	
skel. 2149	♂	<i>Myiopagis viridicata</i>	13.0 gm.	testes 5x3 mm.	
✓ 2150	♂ sk. imm.	<i>Myiopagis viridicata</i>	12.0 gm.	testes 2mm. p.j. molt. brood patch light molt	
skel. 2151	♀ sk. ad.	<i>Aimophila humeralis</i>	19.1 gm.	body plum. fresh.	ovary 
skel. 2152	♂	<i>Aimophila humeralis</i>	24.8 gm.	testis 6x4 mm. light body molt	
✓ 2153	♂ sk. ad.	<i>Aimophila humeralis</i>	27.5 gm.	testis 6x4 mm.	
✓ 2154	♂ sk. ad.	<i>Aimophila humeralis</i>	25.1 gm.	testis 7x5 mm. brood patch molt breast, wings	
2155	♂	<i>Platysais aglaia</i>	30.1 gm.	ent. cl. prot. no molt.	
skel. 2156	♂	<i>Melospiza Kiewerri</i>	34.9 gm.	testes 8x5, 4x6 mm. stage 4 brood patch. testes 4x3 mm.	
skel. 2157	♂	<i>Phenictus chrysoprepus</i>	74.7 gm.	molt on wings, back, breast	

6 mi. N. Cuernavaca, Morelos

August 5

skel. 2158	♂ sk. ad	<i>Aimophila rufescens</i>	38.3 gm.	stomach c insect fragments. testis 9x5 mm. worn	
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Catalog

8 mi. N. Cuernavaca, Morelos

August 5

- ✓ 2159 ♂ sk. ad. *Basilentanus belli* 9.5 gm. testis 3.5 mm
shel. 2160
- ✓ 2161 ♂ sk. ad. *Basilentanus belli* 11.8 gm. testis 2 mm. molt of body & flight feathers
- ✓ 2162 ♂ sk. imm. *Vireo huttoni* 12.0 gm. testes as collected by J. A. Hubbard. P.J. molt. gonads destroyed. heavy body molt-
shel. 2163
- ✓ 2164 ♂ sk. ad. *Ergaticus ruber* 9.3 gm. testes 1 mm. molt of body & flight feathers. juv.
- 2165 ♂ sk. imm. *Troglodytes brunneicollis* 11.8 gm. testes as slight fat. brood patch.
- ✓ 2166 ♀ sk. ad. *Troglodytes brunneicollis* 11.0 gm. ovary B
- ✓ 2167 ♀ sk. imm. *Campylorhynchus megalopterus* 30.4 gm. ovary A molting. stomach c caterpillar & beetle shells.
- ✓ 2168 ♂ sk. ad. *Vireo lanus melitophrys* 34.2 gm. testes 2 mm. brood patch.
- ✓ 2169 ♂ sk. ad. *Vireo lanus melitophrys* 34.2 gm. testes as molting. stomach c beetle fragments & caterpillar.
- ✓ 2170 ♀ sk. imm. *Vireo lanus melitophrys* 30.5 gm. ovary B light body molt. stomach c beetle fragments.
- 2170 ♀ sk. imm. *Vireo lanus melitophrys* 28.8 gm. ovary B light body molt

2 mi. N. Tres Cumbres, Morelos

August 5

- shel. 2171 ♂ sk. ad. *Oriturus superciliosa* 41.0 gm. testis 10x5 mm. slight fat.

2 mi. S. La Cima, Distrito Federal

August 5

- 2172 ♀ sk. ad. *Atlapetes pileatus* 21.8 gm. ovary B brood patch worn
- shel. 2173 ♀ *Atlapetes pileatus* 21.7 gm. ovary B brood patch
- shel. 2174 ♀ *Troglodytes brunneicollis* 13.2 gm. ovary A molting

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1963

Catalog

1 mi. N. Tres Cumbres, Morelos

August 6

2175	♀ sk. imm.	<i>Oriturus superciliosa</i>	39.5 gm.	ovary B	p.j. molt.
2176	♂ sk. imm.	<i>Oriturus superciliosa</i>	38.0 gm.	testes oo	
skel 2177	♂	<i>Oriturus superciliosa</i>	39.2 gm.	cl. prot. cul.	
skel 2178	♀	<i>Oriturus superciliosa</i>	39.2 gm.	testis 9x5 mm.	brood patch. egg in shell gland
skel 2179	♂	<i>Oriturus superciliosa</i>	45.0 gm.	3rd unruptured follicles	light body molt.
skel 2180	♀	<i>Oriturus superciliosa</i>	38.9 gm.	testis 10x6 mm.	d. post. cul. - brood patch worn.
skel 2181	♂	<i>Oriturus superciliosa</i>	42.1 gm.	largest ovum - 3 mm.	brood patch !!
skel 2182	♀	<i>Oriturus superciliosa</i>	40.5 gm.	testis 11x6 mm.	
skel 2183	♂	<i>Oriturus superciliosa</i>	36.3 gm.	ovary A	light body molt.
		<i>Oriturus superciliosa</i>	40.0 gm.	testes 9 mm.	cl. prot. cul.

8 mi. N. Cuernavaca, Morelos

August 6

✓ 2184	♂ sk. imm.	<i>Troglodytes brunneicollis</i>	12.5 gm.	testes oo	slight fat.
skel 2185	♀	<i>Catharus occidentalis</i>	22.6 gm.	ovary A	stage 4 brood patch.

9 mi. SE. ~~La~~ Iguala de Matamoros, Puebla, Mexico

August 7

(2186)	♀	<i>Aimophila leucurus</i>	24.3 gm.	ovary A	
✓ 2187	♀ sk. imm.	<i>Thryothorus felix</i>	14.1 gm.	ovary B	post-juv. molt - body.
(2188)	♀	<i>Icterus wagleri</i>	42.9 gm.	ovary A	
skel 2189		<i>Aimophila rufescens</i>	42.5 gm.	cl. prot. cul.	
(2190)	♂	<i>Thryothorus pleurostictus</i>	19.0 gm.	testis 6 mm	
(2191)	♀	<i>Thryothorus pleurostictus</i>	17.6 gm.	ovary B	

LLW014

1963

Catalog

9 mi. SE. Izucar de Matamoros, Puebla

August 7

✓ 2192	♂	<i>Aimophila humeralis</i>	23.0 gm.	testis 7x5 mm. light molt. cl. prot. cul. light ventral molt.
✓ 2193	♂ sk. ad.	<i>Aimophila mysticallis</i>	20.8 gm.	testes 7x5 mm. edematous brood patch.
✓ 2194	♀ sk. ad.	<i>Aimophila mysticallis</i>	21.3 gm.	largest ovum - 2 mm.
✓ 2195	♀ sk. imm.	<i>Aimophila mysticallis</i>	20.5 gm.	post-juv. molt. ovary 0
2196	♂ sk. ad.	<i>Aimophila mysticallis</i>	21.4 gm.	testes enlarged.
2197	♂ sk. ad.	<i>Aimophila mysticallis</i>	21.8 gm.	testis 9x6 mm brood patch.
2198	♀ sk. ad.	<i>Aimophila mysticallis</i>	20.6 gm.	largest ovum - 1.5 mm.
✓ 2199	♂ sk. imm.	<i>Aimophila mysticallis</i>	21.6 gm.	testes 0? light body molt. cl. prot. cul.
2200	♂ sk. ad.	<i>Aimophila mysticallis</i>	20.7 gm.	testis 8x6 mm. brood patch.
2201	♀ sk. ad.	<i>Aimophila mysticallis</i>	20.8 gm.	largest ovum - 2 mm.

7 mi. S. Piactla, Puebla, Mexico

August 7

✓ 2202	♀ sk. imm.	<i>Aimophila humeralis</i>	20.7 gm.	ovary 0 post-juv. molt
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August 8

2203	♀	<i>Aimophila humeralis</i>	24.5 gm.	ov. enlarged largest ova 3 mm, yolk
2204	♂	<i>Aimophila humeralis</i>	25.0 gm.	testes 4x6 mm
2205	♀	<i>Aimophila humeralis</i>	24.8 gm.	ov. not enlarged
2206	♂	<i>Aimophila humeralis</i>	24.7 gm.	testes 4x7 mm ov. enlarged
2207	♀	<i>Aimophila humeralis</i>	23.2 gm.	largest ova 2 mm
2208	♂	<i>Aimophila humeralis</i>	23.4 gm.	tes. 4x5 mm
2209	♂	<i>Aimophila humeralis</i>	24.1 gm.	tes 4x5 mm

Catalog

7 mi. S. Piaxtla, Puebla, Mexico

August 8


2210	♀ sk. imm.	<i>Aimophila humeralis</i>	21.6 gm.	juvenile
(2211)	♀	<i>Aimophila humeralis</i>	23.7 gm.	ov. not enlarged
(2212)	♂	<i>Aimophila humeralis</i>	24.1 gm.	testes 5x7 mm
✓ 2213	♂ sk. imm.	<i>Aimophila humeralis</i>	23.3 gm.	ovary & p.j. molt.
✓ 2214	♀ sk. imm.	<i>Aimophila humeralis</i>	21.2 gm.	testes .. p.j. molt
✓ 2215	♂ sk. ad.	<i>Aimophila humeralis</i>	24.0 gm.	testis 7x5 mm. pair 2215
(2216)	♀	<i>Aimophila humeralis</i>	22.5 gm.	ov. not enlarged.
(2217)	♂	<i>Aimophila humeralis</i>	24.1 gm.	testes 5x8 mm
(2218)	♀	<i>Aimophila humeralis</i>	24.2 gm.	ov. not enlarged.
2206	♂			testes 4x7
(2219)	♂	<i>Aimophila humeralis</i>	23.0 gm.	testes 5x3 mm

4 mi. SW. Matatlan, Oaxaca

August 9

✓ 2220	♀ sk. imm.	<i>Setophaga picta</i>	10.5 gm.	post- juv. molt.
✓ 2221	♀ sk. imm.	<i>Aimophila ruficeps</i>	18.8 gm.	p. juv. molt.
✓ 2222	♂ sk. imm.	<i>Aimophila notosticta</i>	26.3 gm.	testes .. ovary.
skel. 2223	♂ sk. ad.	<i>Aimophila ruficeps</i>	21.6 gm.	cl. prot. cal. testes 7x5 mm.

August 10

✓ 2224	♀ sk. ad.	<i>Aimophila mysticallis</i>	22.4 gm.	3 ruptured follicles ovary  brood patch.
✓ 2225	♂ sk. ad.	<i>Aimophila mysticallis</i>	22.4 gm.	testis 10x5 mm. pair 2224
(2226)	♂	<i>Aimophila ruficeps</i>	18.6 gm.	testis 9x5 mm.

LLWOLF
1963

Catalog

4 mi. S.W. Matatlan, Oaxaca, Mexico

August 10

✓ 2227	♂	<i>Aimophila notosticta</i>	26.7 gm.	testes	left 6x4 right 8x6 mm.
skel. 2228	♂ sk. ad.	<i>Aimophila notosticta</i>	29.3 gm.	testis	9x5 mm stomach & mistletoe berries.
✓ 2229	♂ sk. ad.	<i>Ptilogonys cinereus</i>	34.8 gm.	testes	oo post-nuptial molt
skel. 2230	♀ sk. ad.	<i>Pipilo albicollis</i>	50.5 gm.	ovary	enlarged. brood patch. c 2230 in family group of 3.
✓ 2231	♀ sk. imm.	<i>Pipilo albicollis</i>	37.3 gm.	ovary	o digest. tract c mistletoe berries
skel. 2232	♂ sk. ad.	<i>Tanagra musica</i>	17.2 gm.	testes	oo mistletoe berries in digest. tract.
✓ 2233	♀ sk. ad.	<i>Tanagra musica</i>	14.8 gm.	ovary	brood patch.
skel. ✓ 2234	♂	<i>Calothrix pulcher</i> testes	2.0 gm.	testis	o

11 miles S.W. Matatlan, Oaxaca, Mexico Km. 608

August 11

(2235)	♂	<i>Aimophila mysticallis</i>	22.6 gm.	cl. prot. eul.	testis 7x5 mm.
✓ 2236	♀ sk. ad.	<i>Aimophila mysticallis</i>	23.0 gm.	ovary	light body molt
(2237)	♂	<i>Aimophila mysticallis</i>	24.8 gm.	testis (right)	8x6 mm.
✓ 2238	♂ sk. ad.	<i>Aimophila mysticallis</i>	23.0 gm.	testis	10x5 mm. cl. prot. eul. edematous brood patch.
skel. 2239	♀	<i>Aimophila mysticallis</i>	21.2 gm.	ovary	
skel. 2240	♂	<i>Aimophila mysticallis</i>	25.0 gm.	testis	8x6 mm. light body molt.
skel. ✓ 2241	♀	<i>Aimophila mysticallis</i>	22.4 gm.	ovary	
✓ 2242	♂ sk. ad.	<i>Aimophila mysticallis</i>	23.9 gm.	testis	9x6 mm. cl. prot. eul.
✓ 2243	♀ sk. imm.	<i>Aimophila mysticallis</i>	23.6 gm.	ovary	o post-juv. molt stomach c grit insect fragments.
skel. 2244	♂	<i>Aimophila rufescens</i>	43.8 gm.	testis	15x5 mm. cl. prot. eul.
skel. 2245	♂	<i>Campylorhynchus fuscus</i>	27.8 gm.	testis	6 mm. worn.
✓ 2246	♀ sk. imm.	<i>Vireo hypochryseus</i>	13.7 gm.	post-juv. molt.	

LL Wolf

1963

Catalog

16 mi. SW. Matatlan, Oaxaca, Mexico

Km. 616 on Pan Am. Hwy.

August 12

✓ skel 2247	♂	<i>Amnophila mysticallis</i>	22.7 gm.	light body molt cl. prot. sk. ent. testis 8 mm. light body molt.
✓ skel. 2248	♂	<i>Amnophila mysticallis</i>	22.0 gm.	testis 7x4 mm. light body molt. cl. prot. sk. ent.
✓ skel. 2249	♂	<i>Amnophila mysticallis</i>	22.6 gm.	testis 8 mm. molt on head, breast, back.
✓ 2250	♂ sk. ad.	<i>Amnophila mysticallis</i>	23.4 gm.	testis 7x5 mm. stomach c insect fragments.
skel. 2251	♂ sk. ad.	<i>Poliophtila albicollis</i>	7.0 gm.	testes enlarged.
✓ 2252	♀ sk. imm.	<i>Poliophtila albicollis</i>	7.3 gm.	ovary o p.j. molt.

5 mi. SE. Totolapan, Oaxaca, Mexico

August 13

skel. 2268	♂	<i>Amnophila mysticallis</i>	23.8 gm.	testes 8x5 mm.
2253			23.8 gm.	alcoholic
2254		<i>Amnophila mysticallis</i>	23.3 gm.	testes 8x6 mm.
skel. 2255	♂	<i>Amnophila mysticallis</i>	24.3 gm.	testes 8x6 mm.
skel. 2256	♀	<i>Amnophila mysticallis</i>	25.1 gm.	largest ovum. Ymar.
skel. 2257	♂	<i>Amnophila mysticallis</i>	21.5 gm.	testis 10x6 mm.
✓ 2258	♂ sk. ad.	<i>Amnophila mysticallis</i>	23.7 gm.	testis 8x6 mm.
skel. 2259	♀	<i>Amnophila mysticallis</i>	22.4 gm.	ovary not. ent.
✓ 2260	♂ sk. ad.	<i>Amnophila mysticallis</i>	23.0 gm.	testis 9x6 mm.
skel. 2261	♂	<i>Amnophila mysticallis</i>	19.9 gm.	testis 6x4 mm.
✓ 2262	♂ sk. imm.	<i>Amnophila mysticallis</i>	25.3 gm.	testes o p.j. molt.

Catalog

10 miles SE. Totolapan, Oaxaca, Mexico

August 13

shel. 2263	♀	<i>Aimophila mysticallis</i>	19.3 gm. largest ovum - 1 mm
shel. 2264	♀	<i>Aimophila mysticallis</i>	23.0 gm. largest ovum - 2 mm
shel. 2265	♂	<i>Aimophila mysticallis</i>	22.9 gm. testes 9x5 mm.
✓ 2266	♂ sk-ad.	<i>Aimophila mysticallis</i>	24.9 gm. testis 9x6 mm.
shel. 2267	♀	<i>Aimophila mysticallis</i>	24.2 gm. ovum 0.5 mm
✓ 2253 2268	♀ sk-imm.	<i>Aimophila mysticallis</i>	14.5 gm. fledgling

3 miles east of Tehuantepec, Oaxaca, Mexico

August 14

✓ 2269	♂ sk-ad.	<i>Aimophila sumichrasti</i>	25.8 gm. testis 6 mm. light body molt.
shel. 2270	♂ sk-ad.	<i>Aimophila sumichrasti</i>	25.0 gm. testis 8x5 mm. heavy mid-back molt.
shel. 2271	♂ sk-ad.	<i>Aimophila sumichrasti</i>	24.7 gm. testis 7 mm - parent of 2273 + 2274 no brood patch.
✓ 2272	♀ sk-ad.	<i>Aimophila sumichrasti</i>	24.3 gm. ovary ② light body molt.
✓ 2273	♂ sk-imm.	<i>Aimophila sumichrasti</i>	16.6 gm. testes .. fledgling.
✓ 2274	♂ sk-imm.	<i>Aimophila sumichrasti</i>	17.0 gm. testis .. fledgling died pair with 2276
✓ 2275	♂ sk-imm.	<i>Aimophila sumichrasti</i>	27.0 gm. gonads destroyed.
✓ 2276	♂ sk-ad.	<i>Aimophila sumichrasti</i>	27.6 gm. testis 6 mm. worn.
✓ 2277	♂ sk-ad.	<i>Aimophila ruficauda</i> <i>sumichrasti</i>	41.0 gm. testis 10x8 mm. light body molt.
(2278)	♂ sk.	<i>Aimophila ruficauda</i>	39.5 gm. testis 9x6 mm. light body molt. new tail feather is acute.
✓ 2279	♀ sk-ad.	<i>Aimophila ruficauda</i>	37.3 gm. ovary ② no brood patch.
✓ 2280	♂ sk-ad.	<i>Aimophila ruficauda</i>	41.5 gm. testis 8x6 mm.
✓ 2281	♀ sk-imm.	<i>Spiza americana</i>	25.0 gm. mod. fat. c flock of 4.

HLWoff
1963

Catalog

5 mi. E. Tehuantepec, Oaxaca, Mexico

August 15

2282		<i>Aimophila</i> <i>sumichrasti</i>	2.0 gm. day old nestling.
2283		<i>Aimophila</i> <i>sumichrasti</i>	2.2 gm. 1 hr. old nestling
2284	♀	<i>Aimophila</i> <i>sumichrasti</i>	28.1 gm. ovary + oviduct enlarged.
✓ 2285	♀ sk. ad.	<i>Aimophila</i> <i>sumichrasti</i>	26.0 gm. ovary
✓ 2286	♂ sk. ad.	<i>Aimophila</i> <i>sumichrasti</i>	27.4 gm. testis 6 mm.
✓ 2287	♂ sk. imm.	<i>Aimophila</i> <i>sumichrasti</i>	24.3 gm. body molt p.j. molt? parent of 2282 + 2283 slight fat.
2288	♂	<i>Aimophila</i> <i>sumichrasti</i>	29.0 gm. cl. post-emb. testis 7 mm. brood patch. (broken)
✓ 2289	♀ sk. ad.	<i>Aimophila</i> <i>sumichrasti</i>	29.1 gm. 2 ruptured follic. + 1 enlarged ovum. body molt.
2290	♂	<i>Aimophila</i> <i>sumichrasti</i>	26.1 gm. testis 6 x 4 mm. little body molt.
✓ 2291	♀ sk. ad.	<i>Aimophila</i> <i>sumichrasti</i>	24.7 gm. ovary slight fat.
✓ 2292	♂ sk. ad.	<i>Myiarchus</i> <i>nuttingi</i>	25.1 gm. testes 10 heavy molt.

3 mi. E. Tehuantepec, Oaxaca, Mexico

August 16




✓ 2293	♀ sk. ad.	<i>Aimophila</i> <i>sumichrasti</i>	pair = 2294. 27.3 gm. ovary brood patch.
✓ 2294	♂ sk. imm.	<i>Aimophila</i> <i>sumichrasti</i>	27.1 gm. testis 6 x 4 mm. not ossified.
sheds 2295	♂	<i>Aimophila</i> <i>sumichrasti</i>	26.9 gm. testes 7 x 6 mm.
✓ 2296	♀ sk. ad.	<i>Aimophila</i> <i>sumichrasti</i>	23.1 gm. ovary brood patch.
sheds 2297	♀	<i>Aimophila</i> <i>sumichrasti</i>	29.8 gm. largest ovum - 7 mm - yolky scattered molt
sheds 2298	♂	<i>Posserina</i> <i>kelanchei</i>	14.9 gm. testes 7 x 3 mm.
✓ 2299	♀ sk. ad.	<i>Volatinia</i> <i>jacarina</i>	10.0 gm. ovary brood patch. skin before eye yellow; above, below
✓ 2300	♀	<i>Morococcyx</i> <i>erythropygia</i> ^{gus}	86.8 gm. behind blue. egg (shelled) in oviduct. molting,
sheds 2301	♀	<i>Crotophaga</i> <i>vulcirostris</i>	78.3 gm. largest ovum 3 mm yolky

LLWOLF
1963

Catalog



3 mi. E. Tehuantepec, Oaxaca, Mexico

August 16

✓ 2302	♂ sk. imm.	<i>Aimophila ruficauda</i>	40.6 gm.	pair = 2303. testis 9x6 mm.	 not assigned.
✓ 2303	♀ sk. ad.	<i>Aimophila ruficauda</i>	37.3 gm.	ovary  brood patch. slight cloacal prot.	
2304	♂	<i>Aimophila ruficauda</i>	38.4 gm.	testes 10x6 mm. light body molt	
✓ 2305	♂ sk. ad.	<i>Aimophila ruficauda</i>	40.8 gm.	testis 11x8 mm.	
✓ 2306	♂ sk. ad.	<i>Aimophila ruficauda</i>	39.5 gm.	testis 10x6 mm.	
2307	♂	<i>Aimophila ruficauda</i>	39.0 gm.	testes 7x5 mm.	
2308	♂	<i>Aimophila ruficauda</i>	42.2 gm.	testes 7x5 mm.	
✓ 2309	♂ sk. ad.	<i>Aimophila ruficauda</i>	38.6 gm.	testis 7x7 mm.	
✓ 2310	♀ sk. ad.	<i>Aimophila ruficauda</i>	37.6 gm.	ovary  brood patch.	

2.5 mi. E. Tehuantepec, Oaxaca, Mexico

August 17


✓ 2311	♂ sk. ad.	<i>Aimophila sumichrasti</i>	28.7 gm.	pair = 2312 testes 6x4 mm.	
skel. 2312	♀	<i>Aimophila sumichrasti</i>	27.1 gm.	ovary not enlarged. pair = 2314	
✓ 2313	♀ sk. imm.	<i>Aimophila sumichrasti</i>	24.7 gm.	ovary  	
✓ 2314	♂ sk. ad.	<i>Aimophila sumichrasti</i>	28.0 gm.	testis 9x5 mm.	
skel. 2315	♂	<i>Aimophila sumichrasti</i>	30.8 gm.	testis ~ 5x7 mm.	
skel. 2316	♀	<i>Aimophila sumichrasti</i>	27.6 gm.	ovary slightly enlarged. parent of 2318 + 2319.	
skel. 2317	♂	<i>Aimophila sumichrasti</i>	26.2 gm.	testis 6x4 mm.	
✓ 2318	♀ sk. imm.	<i>Aimophila sumichrasti</i>	13.6 gm.	fledgling = 2318	
2319		<i>Aimophila sumichrasti</i>	16.6 gm.	fledgling alcoholic	
✓ 2320	♀ sk. imm.	<i>Aimophila ruficauda</i>	27.9 gm.	fledgling = 2310.	
✓ 2321	♂? sk. imm.	<i>Aimophila ruficauda</i>	29.7 gm.	fledgling	

LL Wolf
1963

Catalog

2.5 mi. E. Tehuantepec, Oaxaca, Mexico

Aug. 17

✓ 2322	♂ sk. imm.	<i>Aimophila ruficauda</i>	31.1 gm.	juvenile
skel. 2323	♂	<i>Aimophila ruficauda</i>	35.0 gm.	testis 7x5 mm.
skel. 2324	♀	<i>Aimophila ruficauda</i>	35.4 gm.	largest ovum 1.5 mm.
skel. 2325	♂	<i>Aimophila ruficauda</i>	39.3 gm.	testis 7x5 mm.
skel. 2326	♂	<i>Aimophila ruficauda</i>	37.2 gm.	testis 9x6 mm.
skel. 2327	♂	<i>Aimophila ruficauda</i>	39.4 gm.	testis 9x7 mm.
✓ 2328	♀ sk. ad.	<i>Aimophila ruficauda</i>	42.1 gm.	brood patch. largest ovum - 6 mm.
✓ 2329	♂ sk. imm.	<i>Aimophila ruficauda</i>	32.4 gm.	testis 10x7 mm. yf. & y ova.
✓ 2330	♂ sk. ad.	<i>Aimophila ruficauda</i>	37.7 gm.	testis 9x7 mm. light molt.
✓ 2331	♂ sk. ad.	<i>Aimophila ruficauda</i>	39.0 gm.	testis 10x7 mm. light molt brood patch.
✓ 2332	♀ sk. ad.	<i>Aimophila ruficauda</i>	37.1 gm.	largest ovum - 3 mm. - post breeding
✓ 2333	♀ sk. ad.	<i>Aimophila ruficauda</i>	37.5 gm.	ovary  brood patch.
skel. 2334	♂	<i>Aimophila ruficauda</i>	39.8 gm.	testis 9x7 mm.
✓ 2335	♂ sk. ad.	<i>Aimophila ruficauda</i>	40.0 gm.	testis 6x10

4 mi. E. Tehuantepec, Oaxaca, Mexico

August 18

✓ 2336	♀ sk. imm.	<i>Aimophila sumichrasti</i>	24.3 gm.	ovary 0 - imm.
✓ 2337	♂ sk. ad.	<i>Aimophila sumichrasti</i>	28.0 gm.	testis 6x4 mm. body scap + 20 cov. to molting. with 2336 + 2337
✓ 2338	♀ sk. imm.	<i>Aimophila sumichrasti</i>	26.1 gm.	juvenile ovary 0
✓ 2339	♂ sk. ad.	<i>Aimophila sumichrasti</i>	28.8 gm.	testis 6x4 mm.
✓ 2340	♂ sk. ad.	<i>Aimophila sumichrasti</i>	28.3 gm.	testis 8x6 mm.
✓ 2341	♀ sk. ad.	<i>Aimophila sumichrasti</i>	27.2 gm.	brood patch. yolk y ova 3+2 mm.

HLWOLF
1963


Catalog
4 mi. E. Tehuantepec, Oaxaca, Mexico

August 18

skel. 2342	♂	<i>Aimophila</i> <i>sumichrasti</i>	26.6 gm. testis 7x4 mm.
2343	♀ sk. ad.	<i>Aimophila</i> <i>sumichrasti</i>	24.7 gm. ovary  broad patch. pair with 2345
skel. 2344	♀	<i>Aimophila</i> <i>sumichrasti</i>	27.4 gm. ovary not cul.
skel. 2345	♂	<i>Aimophila</i> <i>sumichrasti</i>	29.0 gm. testis 7x4 mm. pair with 2347
skel. 2346	♂	<i>Aimophila</i> <i>sumichrasti</i>	25.6 gm. testis 7x4 mm.
skel. 2347	♀	<i>Aimophila</i> <i>sumichrasti</i>	23.8 gm. ova-1 mm. + yolk
skel. 2348	♀	<i>Aimophila</i> <i>sumichrasti</i>	27.3 gm. ovary not cul.
skel. 2349	♂	<i>Aimophila</i> <i>sumichrasti</i>	25.8 gm. testis 8x5 mm.
skel. 2350	♂	<i>Aimophila</i> <i>sumichrasti</i>	25.9 gm. testis 7x5 mm.
skel. 2351	♂	<i>Aimophila</i> <i>sumichrasti</i>	30.1 gm. testis 8x5 mm.
skel. 2352	♂	<i>Aimophila</i> <i>sumichrasti</i>	27.2 gm. testis 6x4 mm.
skel. 2353	♂	<i>Aimophila</i> <i>sumichrasti</i>	27.6 gm. testis 9x5 mm.
skel. 2354	♀	<i>Aimophila</i> <i>sumichrasti</i>	25.5 gm. ovary not cul. at least 3 ruptured follicles
skel. 2355	♀	<i>Aimophila</i> <i>sumichrasti</i>	26.6 gm. ova-2 mm + yolk
skel. 2356	♂	<i>Aimophila</i> <i>sumichrasti</i>	27.7 gm. only 1 testis 7x7 mm.
skel. 2357	♂	<i>Aimophila</i> <i>sumichrasti</i>	27.1 gm. testis 7x5 mm.
skel. 2358		<i>Aimophila</i> <i>sumichrasti</i>	27.6 gm. alcoholic
skel. 2359	♀	<i>Aimophila</i> <i>sumichrasti</i>	23.6 gm. ovary not cul.

2 1/2 miles east Tehuantepec, Oaxaca, Mexico

August 19





skel. 2360	♀	<i>Aimophila</i> <i>sumichrasti</i>	26.6 gm. ovary 
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LLWOLF
1963

Catalog



2 1/2 miles east Tehuantepec, Oaxaca, Mexico

August 19

✓ 2361	skel.	♂	<i>Aimophila ruficauda</i>	41.4 gm.	testis 10 x 6 mm.
✓ 2362	skel.	♂ sk. ad.	<i>Aimophila ruficauda</i>	41.0 gm.	testes ^{10 x 7 mm.} pair with 2364
2363	skel.	♀	<i>Aimophila ruficauda</i>	38.7 gm.	ovary 
2364	skel.	♀	<i>Aimophila ruficauda</i>	41.2 gm.	leud. ova 2 ruptured follicles, broad patch
✓ 2365	skel.	♀ sk. imm.	<i>Aimophila ruficauda</i>	40.3 gm.	ovary  tight body molt not over 1.
2366	skel.	♀	<i>Aimophila ruficauda</i>	36.2 gm.	ovary 
2367	skel.	♂	<i>Aimophila ruficauda</i>	34.2 gm.	testes 9 x 6 mm.
2368	skel.	♂	<i>Aimophila ruficauda</i>	38.5 gm.	testis 9 x 6 mm.
2369	skel.	♀	<i>Aimophila ruficauda</i>	37.9 gm.	ovary 
2370	skel.	♂	<i>Aimophila ruficauda</i>	40.9 gm.	testes ~ 8 mm.
2371	skel.	♂	<i>Aimophila ruficauda</i>	39.8 gm.	testis 9 x 6 mm.
2372	skel.	♂	<i>Aimophila ruficauda</i>	31.5 gm.	testis 10 x 7 mm.
✓ 2373	skel.	♂ sk. imm.	<i>Aimophila ruficauda</i>	27.3 gm.	testes .. juvenile with 2373.
✓ 2374	skel.	♀ sk. imm.	<i>Aimophila ruficauda</i>	26.7 gm.	ovary 0

9 mi. E. Tapanatepec, Oaxaca, Mexico

August 20

✓ 2375	skel.	♂ sk. ad.	<i>Passerina rositae</i>	20.0 gm.	testis 8 x 7 mm.
2376	skel.	♂	<i>Passerina rositae</i>	22.6 gm.	testes 00
✓ 2377	skel.	♀ sk. ad.	<i>Passerina rositae</i>	20.9 gm.	ovary  stomach 2 fruits + insect fragments, brood patch legs orange
✓ 2378	skel.	♂ sk. ad.	<i>Chiroxiphia linearis</i>	19.1 gm.	testes 3 mm. stom. 2 fruits, legs orange
✓ 2379	skel.	♂ sk. imm.	<i>Chiroxiphia linearis</i>	18.8 gm.	testes 00 stomach 2 fruits
✓ 2380	skel.	♀ sk. ad.	<i>Thryothorus plumostictus</i>	20.1 gm.	ovary  brood patch.
✓ 2381	skel.	♀ sk. imm.	<i>Thryothorus plumostictus</i>	20.0 gm.	p.j. molt.
2382	skel.	♂	<i>Xiphorhynchus flavigaster</i>	59.7 gm.	testis 5 mm

LH 65/f
1963

Catalog

9 mi. E. Cuernavaca, Morelos, Mexico

August 22

2383	♂	<i>Aimophila ruficauda</i>	26.0 gm.	testes 7x4 mm
2384		<i>Aimophila ruficauda</i>	26.3 gm.	<u>alcoholic</u>
2385	♂	<i>Aimophila ruficauda</i>	28.5 gm.	testes 8x5 mm. together with 2385.
2386	♀	<i>Aimophila ruficauda</i>	26.2 gm.	ov. sl. enlarged. parent of 2388 + 2389
2387	♂ sk. ad.	<i>Aimophila ruficauda</i>	29.8 gm.	testes 7x4 mm.
2388	♀ sk. imm.	<i>Aimophila ruficauda</i>	25.6 gm.	ovary 0 p.j. molt.
2389	♀ sk. imm.	<i>Aimophila ruficauda</i>	27.3 gm.	p.j. molt
2390		<i>Aimophila humeralis</i>	23.1 gm.	<u>alcoholic</u>
2391	♂ sk. ad.	<i>Aimophila humeralis</i>	25.2 gm.	testes 7x4 mm.
shel. 2392	♀	<i>Aimophila humeralis</i>	24.2 gm.	ov. granular
shel. 2393	♀	<i>Aimophila humeralis</i>	24.6 gm.	1. ova 2 mm
shel. 2394	♂	<i>Aimophila humeralis</i>	25.8 gm.	testes 7x5 mm
shel. 2395	♂	<i>Aimophila humeralis</i>	25.9 gm.	testes 7x5 mm
shel. 2396	♂	<i>Aimophila humeralis</i>	24.0 gm.	testes 6x6 mm R. 6x4 mm
shel. 2397	♂	<i>Aimophila humeralis</i>	24.3 gm.	testes L. 4x4 mm egg in oviduct large follicle.
shel. 2398	♀	<i>Aimophila humeralis</i>	28.6 gm.	ov. sl. enlarged
shel. 2399	♀	<i>Aimophila humeralis</i>	22.2 gm.	ov. granular together with 2401.
shel. 2400	♂	<i>Aimophila humeralis</i>	25.6 gm.	testes 7x4 mm
shel. 2401	♀	<i>Aimophila humeralis</i>	21.2 gm.	1. ova 2 mm

1963

58 mi. S. Navajoa, Sonora, Mexico.

August 28

- | | | | | |
|----------------|-------------|---------------------------|----------|--|
| ✓2402 | ♂ sk. imm. | <i>Aimophila carpalis</i> | 14.4 gm. | testes .. p. j. molt. |
| ✓2403 | ? sk. imm. | <i>Aimophila carpalis</i> | 15.0 gm. | p. j. molt.
+ 2402, 2403, 2404 together |
| ✓2404 | ? sk. imm. | <i>Aimophila carpalis</i> | 15.6 gm. | p. j. molt. |
| ✓2405 | ♂ sk. imm. | <i>Aimophila carpalis</i> | 15.1 gm. | testes .. p. j. molt. |
| ✓2406 | ♀? sk. imm. | <i>Aimophila carpalis</i> | 10.8 gm. | stub-tailed yg.
parent of 2406. brood patch. |
| shd.
2407 | ♀ | <i>Aimophila carpalis</i> | 13.0 gm. | no molt. largest ovum 3mm (yolky)
parent of 2409 brood patch. |
| 4 shd.
2408 | ♀ | <i>Aimophila carpalis</i> | 14.1 gm | no molt. largest ova 2mm |
| ✓2409 | ♂ sk. imm. | <i>Aimophila carpalis</i> | 12.0 gm | testes. & stub-tailed. yg. |

27 mi. S. Ciudad Oregón, Sonora, Mexico

August 25

- ✓ 24/0 ♂ sk. imm. *Aimophila carpalis* 16.0 gm. testes on p-j. molt.
parent of 24/1.
✓ 24/1 ♀ sk. ad. *Aimophila carpalis* 16.7 gm. largest foll. - 4 mm.

20 mi. e. of Mazatan, Sonora, Mexico

August 26

- ✓ 2412 ♀ sk. un. *Aimophila quinquestrata* 20.1g slight fat.
✓ 2413 ♂ sk. im. *Aimophila quinquestrata* 20.1g
✓ 2414 ♂ sk. im. *Aimophila quinquestrata* 19g.
(2415) ♂ *Aimophila quinquestrata* 18.7g testes 6x10mm
(2416) ♂ *Aimophila quinquestrata* 17.1g. (lost tail) testes 6x10mm
2417 ♀ sk. im. *Aimophila quinquestrata* 21g. slight fat. p.j. molt.
✓ 2418 ? sk. im. *Aimophila quinquestrata* 28.4g p.j. molt
(2419) ♀ *Aimophila quinquestrata* 19.2 ovary slightly enlarged
(2420) ♂ *Aimophila quinquestrata* 19.7 testes 5x8mm

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1963

Catalog

20 mi. e. of Mazatlan, Sonora, Mexico

26 August

- (2421) ♀ *Aimophila quinquestriata* 18.7g ovary enlarged, largest ova 1mm
- (2422) ♂ *Aimophila quinquestriata* 17.7g testes 6x10mm
- (2423) ⁴ ♂ *Aimophila quinquestriata* ~~25g~~ 18.7g testes 5x8mm
- (2424) ³ ♀ *Aimophila quinquestriata* ~~18.7g~~ ^{25g} fully formed white egg in oviduct. 12mm yolk in ovum in ovary.
- ✓ 2425 ? sk. *Passerina versicolor* 12.4 p.j. molt.

2 mi. e. of Guaymas, Sonora, Mexico

25 August

- 2426 ♂ *Thalasseus maxima* 470g. bill orange; feet black winter plumage

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1963

Catag

5 mi. N. Firebaugh, Fresno Co., Calif.

Nov. 1, 1963

2427 ♂? ad. sk. Euphagus cyanocephalus little fat.

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Catalog

Wilcox Rd., 0.6 mi. N. Benson Hwy., Tucson, Pima Co., Arizona

December 17

2429	♂ sk. ad.	<i>Amphispiza bilineata</i>	13.9 gm.	testes oo
2430	♂ sk. ad.	<i>Aimophila carpalis</i>	14.9 gm.	testes oo
2431	♀ sk. imm.	<i>Aimophila carpalis</i>	13.8 gm.	ovary 0 slight fat.

1 mi. N. Yuma, Imperial Co., California

Dec. 16

2432	♂ sk. ad.	<i>Amphispiza bilineata</i>	testes < imm.
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Wilcox Rd., 0.6 mi. N. Benson Hwy., Tucson, Pima Co., Arizona

Dec. 18

2433	♂ sk. ad.	<i>Chondestes</i>	31.9 gm.	stom. - vegetable testes oo
2434	♀ sk. ad.	<i>Chondestes</i>	29.9 gm.	stom. - vegetable.
2435	♂? sk. ad.	<i>Spizella breweri</i>	10.7 gm.	stom. & vegetable.
2436	♀ sk. imm.	<i>Melospiza lincolni</i>	14.9 gm.	

2 mi. S. Molino Basin, 4000 ± feet, Sta. Catalina Mts., Pima Co., Arizona

Dec. 19

2437	♀ sk. imm.	<i>Spizella atregularis</i>	11.5 gm.	stom. & gut + veget. matter.
2438	♂ sk. imm.	<i>Aimophila ruficeps</i>	20.0 gm.	slight fat. testes oo
2439	♂ sk. imm.	<i>Aimophila ruficeps</i>	17.1 gm.	testes oo
2440	♀	<i>Aimophila ruficeps</i>	18.8 gm.	

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Catalog

Molino Basin, Sta. Catalina Mts., Pima Co., Arizona

Dec. 20

2441	♂ sk. imm.	<i>Aimophila ruficeps</i>	18.8 gm. slight fat. testes ++
2442	♂ sk. imm.	<i>Aimophila ruficeps</i>	20.7 gm. slight fat. testes ++
2443	♀ sk. ad.	<i>Aimophila ruficeps</i>	19.5 gm. ovary ¹ slight fat.

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2444 ♀ Berkeley, Alameda Co., California
Lophortyx californicus 190.0 gm. slight fat.

Berkeley, Alameda Co., California

March 15

2445 ♂ sk. ad. *Melospiza melodia* 19.1 gm. died in captivity
mod. fat. t. 9x6 mm.

May 19


2446 ♀ sk. ad. *Pipilo fuscus* -

road kill edem. brood patch
mod fat. ov 3, 2 mm.

7 mi. W. Tracy, San Joaquin Co., Calif.

May 23

2447 ♂ sk. ad. *Lanius ludovicianus*

post-nup. molt 2^o ^{reaches old} _{new}
little fat. testes 

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Catalog

3 mi. E. Tucson, Pima Co., Arizona.

June 13

✓ skel. 2448 ♂ sk. ad. *Progne subis* 46.4 gm. t. 14x8 mm. ^{little fat.}

Molino. Basin, E. of Tucson, Pima Co., Arizona 4100 feet.

June 14

2449 ♂ ad sk. *Piranga flava* 35.5 gm. t. 9x7 mm. ^{stomach =} hymenoptera
2450 ♂ ad. sk. *Amophila ruficeps* 20.0 gm. t. 10x6 mm. cl. prot. enl.
skel. 2451 ♂ ad. sk. *Amophila ruficeps* 19.3 gm. t. 7 mm. ^{pair = 2452} sl. fat.
skel. 2452 ♀ sk. ad. *Amophila ruficeps* 18.7 gm. ^{brood patch} ovary old ruptured follicles
skel. 2453 ♀ sk. ad. *Amophila ruficeps* 19.1 gm. ^{sl. fat.} ovary = 2 mm ova. ^{brood patch sl. 2} pair 2x5y
✓ skel. 2454 ♂ sk. ad. *Amophila ruficeps* 19.4 gm. ^{worm.} testes 8 mm. little fat.
✓ skel. 2455 ♂ sk. ad. *Vireo bellii* 9.2 gm. t. 4 mm. little fat.
skel. 2456 ♂ sk. ad. *Icterus cucullatus* 24.3 gm. ^{little fat.} testis 9x7 mm. cl. prot. enl.
✓ skel. 2457 ♂ sk. ad. *Pipilo fuscus* 46.0 gm. ^{no fat} testis 13x9 mm cl. prot. enl.
✓ skel. 2458 ♀ sk. imm. *Psaltiriparus minimus* 5.5 gm. ovary 8 little fat.
skel. 2459 ♂ *Archilochus alexandri* 2.7 gm testes 2 mm.
2460 ♂ *Cyananthus latirostris* 3.2 gm t. 2 mm. ^{body} molt

1 mi. ^{S.} Boykin Springs, ~~Jasper~~ Jasper Co., Texas.

June 17

✓ 2461 ♀ *Melanerpes erythrocephalus* 66.7 gm. ^{brood patch} ova. 2 mm.
✓ 2462 ♂ sk. ad. *Dendroica pinus* 11.8 gm. ^{little fat} t. 5x3 mm.
2463 ♂ sk. ad. *Dendroica pinus* 13.2 gm. ^{ovo fat.} t. 9x5 mm.

Catalog

1 mi. S. Boykin Springs, Jasper Co., Texas

June 18

2464	♂ sk. imm.	<i>Dendroica pinus</i>	13.6 gm.	mod. fat.	p.j. molt.
2465	♀ sk. imm.	<i>Dendroica pinus</i>	10.6 gm.	little fat.	
2466	♂ sk. ad.	<i>Dendroica pinus</i>	12.8 gm.	testes enlarged.	
2467	♂ sk. ad.	<i>Piranga rubra</i>	28.0 gm.	t. 11x7 mm.	
2468	♂ sk. imm.	<i>Richmondia cardinalis</i>	42.5 gm.	t. ♂ bill black.	
2469	0? sk. imm.		14.0 gm.	brood patch	stomach ♂ ants &
2470	♂	<i>Dendrocopos pubescens</i>	23.0	f. 4 mm	other insects
2471	♀ sk. ad.	<i>Dendroica pinus</i>	11.0 gm.	ov. not cul.	brood patch.
2472	♂ sk. ad.	<i>Vireo olivaceus</i>	16.2 gm.	f. 8x5 mm.	cl. prot. cul.
2473	♂ sk. ad.	<i>Vireo olivaceus</i>	18.2 gm.	f. 9x5 mm.	brood patch
2474	♀	<i>Centurus carolinus</i>	71.0 gm.	largest ovum - 2 mm.	

June 19

2475	♂ sk. ad.	<i>Vireo griseus</i>	11.2 gm.	f. 5 mm.	slight fat.
2476	♀ sk. imm.	<i>Thryothorus ludovicianus</i>	16.7 gm.	post up molt.	
2477	♀ sk. ad.	<i>Tarus</i>	9.3 gm.	reteacher.	brood patch
2478	♂ sk. ad.	<i>Thryothorus ludovicianus</i>	19.0 gm.	f. 6x4 mm.	♂ 2476
2479	♂ sk. ad.	<i>Contopus virens</i>	12.7 gm.	f. 8x4 mm.	♂ 2481
2480	♀ sk. ad.	<i>Poliophtila caerulea</i>	5.3 gm.	ovary ♂	brood patch
2481	♂ sk. imm.	<i>Poliophtila caerulea</i>	5.4 gm.		
2482	♀	<i>Centurus carolinus</i>	60.4 gm.	1. ova - 2 mm.	brood patch.
2483	♂ sk. ad.	<i>Piranga rubra</i>	f. cul.		
2484	♀ sk. ad.	<i>Dendroica pinus</i>	ovary sl. cul.	brood patch.	mod. fat.

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Catalog

1 mi. S. Boykin Springs, Jasper Co., Texas

June 20

2485	♂ sk. ad.	Thryothorus ludovicianus	19.8 gm.	t. 8x4 mm. p.n. molt.
2486	♂ sk. ad.	Parus bicolor	21.4 gm.	t. 3 mm.
2487	♂ sk. ad.	Vireo flavitrons	16.5 gm.	t. 6x4 mm.
2488	♂? sk. imm.	Dendroica pinus	12.3 gm.	slight fat. brood patch.
2489	♀ sk. ad.	Empidonax	12.8 gm.	large ova. - 3 mm. yolk y
2490	♂ sk. ad.	Vireo griseus	11.8 gm.	t. 6x4 mm.
2491	♀ sk. imm.	Parus	9.0 gm.	
2492	♂ sk. ad.	Vireo olivaceus	16.8 gm.	t. 7x6 mm.

1 1/2 mi. S. Boykin Springs, Jasper Co., Texas

June 20

✓ skel 2493	♀ sk. ad.	Aimophila aestivalis	18.5 gm.	brood patch - 2495 large ova. 3 mm. - cl. prot. end.
✓ skel. 2494	♂ sk. ad.	Aimophila aestivalis	21.1 gm.	t. 11x7 mm.
2495	♀ sk. imm.	Aimophila aestivalis	18.3 gm.	

4 mi. E. Boykin Springs, Jasper Co., Texas

- June 21

in group of 5.

2496	♀	Dendrocopos	38.8 gm.	
✓ 2497	♂ sk. ad.	Aimophila aestivalis	22.6 gm.	cl. prot. end. t. 13x7 mm.
✓ 2498	♂ sk. ad.	Aimophila aestivalis	19.0 gm.	cl. prot. end. t. 7 mm.

1 mi. S. Boykin Springs, Jasper Co., Texas

June 21

2499	♂ sk. ad.	Aimophila aestivalis	t. 10x6 mm.	♂ 2500, 2501 18.4 gm.
2500	♀ sk. imm.	Aimophila aestivalis	14.6 gm.	
✓ 2501	♀	Aimophila aestivalis	19.4 gm.	

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Catalog

4 mi. E. Boykin Springs, Jasper Co., Texas

June 21

2502 ♀ sk. imm. *Aimophila aestivalis* 10.4 gm. ^{stomach essent. empty} fledgling.

1 mi. S. Boykin Springs, Jasper Co., Texas

June 22

2503 ♂ *Aimophila aestivalis* 19.0 gm. cl. prot. enl. alcoholic

2 mi. S. Boykin Springs, Jasper Co., Texas

June 22

2504 ♂ sk. ad. *Icteria virens* 28.9 gm. t. 14 x 9 mm.

2505 ♀ sk. imm. *Thryothorus ludovicianus* 16.1 gm.

2506 ♂ sk. ad. *Vireo griseus* 11.1 gm. t. 8 x 5 mm.

2507 ♂ sk. imm. *Vireo griseus* 10.5 gm. testes oo

2508 ♂ sk. ad. *Poliophtila caerulea* 5.8 gm. t. enl.

skel. 2509 ♀ sk. ad. *Vireo griseus* 14.0 gm. oviduct enl. ova 8, 5, 3, 2 mm. brood patch.

1 mi. S. Boykin Springs, Jasper Co., Texas

June 23

2510 ♀ *Melanerpes erythrocephalus* 61.3 gm. brood patch 1. ovum 3 mm. stom - mostly veget.

2511 ♂ *Melanerpes erythrocephalus* 67.3 gm. t. 6 mm. stom & upstly veget. ^{water} brood patch 2510

skel. 2512 ♂ sk. ad. *Dendroica pinus* 12.3 gm. t. 6 x 4 mm. #1 - 1/3 grown #2 - just erupting

✓ skel. 2513 ♀ sk. ad. *Dendroica pinus* 12.4 gm. ov. granular.

✓ skel. 2514 ♀ *Dendrocopos borealis* 40.5 gm. ovary 1 - imm.

✓ skel. 2515 ♂ *Aimophila aestivalis* 19.0 gm. t. 11 x 7 mm. cl. prot. enl.

✓ skel. 2516 ♂ *Aimophila aestivalis* 18.7 gm. t. 11 x 6 mm. cl. prot. enl.

✓ skel. 2517 0? *Sitta pusilla* 9.7 gm. sex shot.

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Catalog

1 1/2 mi. S. Boykin Springs, Jasper Co., Texas

June 23

2518		<i>Amophila aestivalis</i>	11.9 gm	nestling	} all from same nest. light body molt
2519		<i>Amophila aestivalis</i>	11.8 gm.	nestling	
2520		<i>Amophila aestivalis</i>	11.9 gm.	nestling	
✓ skel 2521	♂ sk. ad.	<i>Amophila aestivalis</i>	20.3 gm.	t. 10x5 mm.	brood patch
✓ skel 2522	♀ sk. ad.	<i>Amophila aestivalis</i>	17.5 gm.	ov. sl. ent. 1 ova - 2 mm.	brood patch
✓ skel 2523	♀ sk. ad.	<i>Amophila aestivalis</i>	26.9 gm.	ov. sl. ent. 1 ova - 2 mm	yolky

12 mi. SW. Refugio, Refugio Co., Texas

June 25

2524	♂ sk. ad.	<i>Myiarchus</i>	32.7 gm.	t. 11x5 mm.	
2525	♂ sk. ad.	<i>Myiarchus</i>	29.8 gm	t. 10x5 mm.	
2526	♂ sk. imm.	<i>Amophila cassinii</i>	18.6 gm.	t. "	skull not ossified at all.
2527	♂ sk. imm.	<i>Passerina ciris</i>		testes "	
2528	♂ sk. imm.	<i>Amophila cassinii</i>	17.8 gm	testes "	sk. stage #1.
✓ skel 2529	♀ sk. ad.	<i>Amophila cassinii</i>	20.7 gm.	egg yolk in oviduct. 1 unvt. foll.	
✓ skel 2530	♂ sk. imm.	<i>Amophila cassinii</i>	17.3 gm.	yolky ovum - 7 mm.	brood patch stage 6-7 H.j. molt
✓ skel 2531	♂ sk. ad.	<i>Passerina ciris</i>	16.0 gm.	sk. stage #1.	t. 8x7 mm.
✓ skel 2532	♂ sk. ad.	<i>Mimus polyglottos</i>	55.3 gm.	♀ plumage with few blue feathers	

June 26

2533	0? sk. imm.	<i>Molothrus ater</i>	31.4 gm.	sl. fat.	
2534	♀ sk. imm.	<i>Passerina ciris</i>	16.2 gm.	sl. to mod. fat.	
2535	♂ sk. imm.	<i>Passerina ciris</i>	16.1 gm.		
2536	♀ sk. imm.	<i>Muscivora forticata</i>	36.0 gm.		
2537	♀ sk. ad.	<i>Molothrus ater</i>	38.6 gm.	3 unvt. foll. yolk in oviduct.	6 mm. follicle.

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12 mi. SW Refugio, Refugio Co., Texas

June 26

- ✓ skel.
2538 ♂ sk. ad. *Auriparus flaviceps* 7.3 gm. t. 5 mm.
✓ 2539 ♂ sk. ad. *Aimophila cassini* 16.8 gm. t. 8x4 mm.
1 2540 ♀ sk. ad. *Passerina ciris* 17.6 gm. hard-shelled egg in oviduct.
3 rupt. foll. ova - 2 mm.

June 27

- 2541 ♀ *Centurus arifrons* 84.3 gm. 4 rupt. foll., egg in shell gland.
foll. 11, 8, 4 mm.

8 mi. N. Sinton, San Patricio Co., Texas

June 27

- 2542 ♂ sk. ad. *Vireo griseus* 10.5 gm. t. 6x4 mm.
2543 ♂ sk. imm. *Vireo griseus* 11.2 gm.
2544 ♂ sk. ad. *Passerina ciris* 17.0 gm. t. 9x5 mm.

12 mi. SW. Refugio, Refugio Co., Texas

June 27

- ✓ 2545 ♀ sk. ad. *Passerina ciris* 17.3 gm. ova - 2 mm.
✓ 2546 ♂ sk. ad. *Icterus spurius* 19.9 gm. 9x6 mm testes
✓ 2547 ♂ sk. ad. *Aimophila cassini* 18.3 gm. t. 6 mm.
1 2548 ♀ sk. ad. *Passerina ciris* 18.0 gm. ova - 4 mm.
2549 ♀ sk. ad. *Passerina ciris* 16.3 gm. ova - 3 mm.

June 28

- 2550 ♀ sk. ad. *Amphispiza bilineata* mod. fat 13.4 gm. stom. - seed 50% chitin 50%
ova - 2 mm. 2 dem. brood patch.

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Catalog

12 mi. SW. Refugio, Refugio Co., Texas

June 28

✓ skel. 2551	♀ sk. ad.	<i>Aimophila</i> <i>cassinii</i>	mod fat. 19.7 gm.	edem. brood patch. ova - 1 imm.
✓ skel. 2552	♀	<i>Passerina</i> <i>ciris</i>	18.3 gm.	edem. brood patch 3 rupt. foll. yolk in oviduct.
✓ skel. 2553	♂ sk. ad.	<i>Myiarchus</i>	34.8 gm.	f. 8x4 mm. like 2552.
✓ skel. 2554	♀ sk. ad.	<i>Vireo</i> <i>belli</i>	9.4 gm.	ovary slight fat edem. brood patch.
skel. 2555	♀	<i>Centurus</i> <i>aurifrons</i>	80.5 gm.	ov. sl. enl. brood patch = 2556.
2554 ⁹	♂ sk. ad.	<i>Muscivora</i> <i>forticata</i>	39.3 gm.	f. 17x7 mm.
✓ 2556	♀	<i>Centurus</i> <i>aurifrons</i>	81.4 gm.	Brood patch ova - 4 imm.

8 mi. N. Sinton, San Patricio Co., Texas

June 28

2557	♂ sk. ad.	<i>Myiarchus</i>	29.6 gm.	testis 10x5 mm.
✓ skel. 2558	♂ sk. ad.	<i>Myiarchus</i>	26.0 gm.	same as 2557. f. 8 mm.

12 mi. SW. Refugio, Refugio Co., Texas

June 29

2569	♀ sk. imm.	<i>Aimophila</i> <i>cassinii</i>	17.0 gm.	skull st. 1 p.j. molt st. 6-7
2560	♀ sk. imm.	<i>Muscivora</i> <i>forticata</i>	38.7 gm.	sk. st. 2 p.j. molt.
2561	♂ sk. ad.	<i>Icterus</i> <i>bullockii</i>	38.3 gm.	testis 11x6 mm.
2562	♂ sk. ad.	<i>Icterus</i> <i>spurius</i>	19.9 gm.	testis 11x6 mm.
2563	♂? sk. imm.	<i>Vireo</i> <i>belli</i>	10.5 gm.	
2564	♂ sk. ad.	<i>Vireo</i> <i>belli</i>	9.7 gm.	f. 5x3 mm.
2565	♀ sk. ad.	<i>Richmondia</i> <i>cardinalis</i>	36.6 gm.	ov. sl. enl.
2566	♂ sk. ad.	<i>Muscivora</i> <i>forticata</i>	37.7 gm.	testis 14x7 mm. = 30♂ + 1♀
2567	♂ sk. ad.	<i>Molothrus</i> <i>ater</i>	44.3 gm.	f. 7x4 mm.
✓ skel. 2568	♀	<i>Coccyzus</i> <i>americanus</i>	59.4 gm.	ovary enl. one rupt. foll.

~~2569~~

LLW81F

1964

Catalog

12 mi. ^{SW} ~~SW~~ Refugio, Refugio Co., Texas

June 29

skel	2570	♂ sk. ad.	Chondestes grammacus	26.0 gm.	testis 12x6 mm.
skel	2571	♀ sk. ad.	Muscivora fuscata	37.1 gm.	brood patch ovary granular
skel.	2572	♂ sk. ad.	Thryomanes bewickii	11.8 gm.	t. 8x4 mm.
skel	2573	♂ sk. ad.	Molothrus ater	39.8 gm.	t. 5x4 mm. ^{♀ 2574} 2567, 2576
skel	2574	♂ sk. ad.	Molothrus ater	43.0 gm.	t. 5x4 mm.
✓	2575	♂ sk. ad.	Virco belli	10.0 gm.	t. 5x3 mm.
	2576	♀ sk. ad.	Molothrus ater	37.3 gm.	3 imp. foll. yolk in oviduct. ova - 10, 7, 4 mm.
	2577	♂	Molothrus ater		
	2578				

7.5 mi. N. Sinton, San Patricio Co., Texas

June 29

2579	♂ sk. ad.	Aimophila cassinii	16.4 gm.	testis 10x6 mm.
2580	♂ sk. imm.	Chondestes grammacus	15.0 gm.	fledgling

June 30

2581	♂ sk. ad.	Aimophila cassinii	17.3 gm.	testis 8x5 mm. crown, neck, breast molt. d. part. ent.
2582	♀ sk. imm.	Aimophila cassinii	17.1 gm.	p.j. molt. skull st. #2.
2583	♂ sk. imm.	Passerina ciris	15.7 gm.	p.j. molt
2584	♂ sk. imm.	Passerina ciris	14.7 gm.	p.j. molt.
2585	♂ sk. ad.	Virco belli	9.7 gm.	testis 7x4 mm.
2586	♀ sk. imm.	Pyrrhuloxia sinuata	33.4 gm.	
2587	♂ sk. ad.	Pyrrhuloxia sinuata	36.4 gm.	testis 9x5 mm. 3 imp. foll. yolk in ovid.
2588	♀ sk. ad.	Amphispiza bilineata	15.9 gm.	brood patch sk. st. 2
2589	♂ sk. imm.	Aimophila cassinii	18.7 gm.	body p.j. molt - general
2590	♂ sk. imm.	Amphispiza bilineata	13.2 gm.	

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7.5 mi. N. Sinton, San Patricio Co., Texas

June 30

2591	0? sk. imm.	<i>Aimophila cassinii</i>	16.3 gm.	skull st. 2 p.j. molt
2592	♂ sk. imm.	<i>Aimophila cassinii</i>	17.2 gm.	sk. st. 2
2593	0? sk. imm.	<i>Aimophila cassinii</i>	18.1 gm.	sk. st. 2
2594	♂ sk. ad.	<i>Aimophila cassinii</i>	18.3 gm.	t. 9x6 mm.
✓ shel 2595	♂ sk. ad.	<i>Aimophila cassinii</i>	18.4 gm.	testis - 8x6 mm sl. fat. rect. 4/1 - not worn
✓ shel 2596	♀ sk. ad.	<i>Aimophila cassinii</i>	17.5 gm.	2 rupt. foll. (at least) Ovarian - 2 mm. brood patch
✓ 2597	♀ sk. ad.	<i>Passerina ciris</i>	13.9 gm.	ova - 1 mm. brood patch.

July 1

2598	♂	<i>Centurus aurifrons</i>	86.5 gm.	t. 7x4 mm.
2599	♀ sk. imm.	<i>Aimophila cassinii</i>	17.8 gm.	sk. st. 1 light body, molt.
2600 2599	♂ sk. ad.	<i>Vireo bellii</i>	9.2 gm.	t. 5x3 mm. given to Walden. Wildlife Foundation
2601	♂ sk. imm.	<i>Passerina ciris</i>	16.3 gm.	sl. fat. stom with grasshopper fragment. brood patch
2602	♂	<i>Coccyzus americanus</i>	52.9 gm.	t. 9x4 mm. ♂ 2603. 2 rupt. foll. ova - 10, 4 mm.
2603.	♀	<i>Coccyzus americanus</i>	68.7 gm.	brood patch.
2604	0? sk. ad.	<i>Auriparus flaviceps</i>	8.5 gm.	
shel 2605	♂ sk. ed.	<i>Richardsonia cardinalis</i>	38.7 gm.	t. 8x4 mm.
shel 2606	♂ sk. ad.	<i>Chondestes grammacus</i>	26.9 gm.	t. 9x5 mm.

July 5

2607	♂	<i>Aimophila cassinii</i>	16.6 gm.	cl. prot. ent. alcoholic
2608	♀ sk. imm.	<i>Aimophila cassinii</i>	16.3 gm.	p.j. molt. sl. fat.
2609	♀ sk. imm.	<i>Aimophila cassinii</i>	17.8 gm.	sk. st. 2
2610	♂ sk. imm.	<i>Aimophila cassinii</i>	18.5 gm.	skull st. 1

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7.5 mi. N. Sinton, San Patricio Co., Texas

July 5

2611	♀? sk. imm.	<i>Aimophila cassinii</i>	17.2gm.	sk. st. 1	sl. fat.
2612	♂ sk. ad.	<i>Aimophila cassinii</i>	17.6gm.	t. 8x6mm.	cl. prot. eul.
2613	♀ sk. imm.	<i>Thryomanes bewickii</i>	11.0gm.	sk. st. 2	
✓skel 2614	♂ sk. ad.	<i>Aimophila cassinii</i>	17.5gm.	t. 8x6mm.	cl. prot. eul.
✓skel 2615	♂ sk. ad.	<i>Aimophila cassinii</i>	17.5gm.	t. 8x6mm.	cl. prot. eul.
✓skel 2616	♂ sk. ad.	<i>Amphispiza bilineata</i>	13.0gm.	t. 7x5mm.	cl. prot. eul.
✓skel 2617	♂	<i>Coccyzus americanus</i>	78.6gm.	t. 9x5mm.	Stomach single katydid

6 mi. NW Port Isabel, Cameron Co., Texas

July 9

2618	♂ sk. ad.	<i>Aimophila botterii</i>	23.5gm.	sl. fat.	light body molt.
2619	♂ sk. imm.	<i>Aimophila cassinii</i>	17.0gm.	t. 10x6mm.	cl. prot. eul.
2620	♀ sk. imm.	<i>Aimophila cassinii</i>	18.3gm.	skull st. 2	sl. fat
✓skel 2621	♂ sk. ad.	<i>Aimophila botterii</i>	23.2gm.	testes	light molt.
✓skel 2622	♀ sk. ad.	<i>Aimophila cassinii</i>	19.2gm.	sl. fat.	skull st. 1
2623	♀ sk. imm.	<i>Aimophila cassinii</i>	15.3gm.	sl. fat.	t. 9x5mm.
2624	♀ sk. imm.	<i>Aimophila cassinii</i>	18.6gm.	sl. fat.	body molt.
✓2625	♂ sk. ad.	<i>Toxostoma curvirostre</i>		sl. fat.	body molt.

7 mi. NW. Port Isabel, Cameron Co., Texas

July 10


2626	♂ sk. ad.	<i>Aimophila cassinii</i>	19.2gm.	t. 10x6mm.	sl. fat.
2627	♀	<i>Centurus aurifrons</i>	69.6gm.	juv.	sl. fat.

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7 mi. NW Port Isabel, Cameron Co., Texas

July 10

2628	♂	Centurus aurifrons	68.8 gm.	juv.	worn sl fet.
✓ skel 2629	♀ sk. ad.	Aimophila cassini	18.0 gm.	edema brood patch	ovary 
✓ 2630	♂ sk. ad.	Aimophila botteri	21.9 gm.	cl. part. enl.	back + covert molt. 8x6 mm
✓ skel 2631	♂	Centurus aurifrons	91.6 gm.	molt 10-11 grown 2 3/4	cl. part. enl. + 8x6 mm

~~skel 2632 ♂~~

Laguna Atascosa Wildlife Refuge, Cameron Co., Texas

July 10

2633					heavy mid + lower back molt.
✓ skel. 2632	♂ sk. ad.	Aimophila botteri	25.2 gm.	t. 12x6 mm.	stom. c insects

6 mi. S

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
6 mi. SW. Acatlipa, Morelos, Mexico 4500ft.±

July 13

2633	♀ sk. imm.	<i>Aimophila ruficauda</i>	25.9 gm.	light breast molt. sl. fat. largest ova - 1 mm. heavy body molt. sl. fat.
2634	♂ sk. imm.	<i>Aimophila ruficauda</i>	27.3 gm.	f. 7x5 mm.
2635	♂ sk. imm.	<i>Aimophila ruficauda</i>	27.0 gm.	heavy body molt. f. 6x4 mm. sl. fat. ~ 2633, 2634

Cañon de Lobos, 9 mi. E. Cuernavaca, Morelos, Mexico

July 14

2636	♀ sk. ad.	<i>Tyrannus crassirostris</i>	60.5 gm.	ovary  brood patch pinupt. molt. sl. fat
2637	♂ sk. ad.	<i>Tyrannus crassirostris</i>	56.9 gm.	f. 5 mm. sl. fat pinupt. molt
2638	♂ sk. imm.	<i>Myiagapis vividicata</i>	12.5 gm.	f. 7x4 mm. light body molt, brood patch.
2639	♂ sk. ad.	<i>Zuthypis lachrymosa</i>	15.2 gm.	f. 7x6 mm. cl. prot. cul.
2640	♀	<i>Centurus chrysogenys</i>	65.4 gm.	juv. ovary 
2641	♂ sk. ad.	<i>Platypsaris aglaiae</i>	30.5 gm.	f. 7x4 mm.
Mexico 2642	♂ sk. ad.	<i>Platypsaris aglaiae</i>	29.1 gm.	f. 5x4 mm. worn
2643	♀ sk. imm.	<i>Icterus pustulatus</i>	25.4 gm.	ovary B juv.
2644	♂	C. chlorostilbon <i>canivetii</i>	2.2 gm.	f. 2 mm.
2645	♀ sk. ad.	<i>Icterus pustulatus</i>	36.9 gm.	ovary granular brood patch
skel. 2646	♀ sk. ad.	<i>Platypsaris aglaiae</i>	30.5 gm.	ovary  brood patch.
✓ skel. 2647	♂ sk. ad.	<i>Icterus pustulatus</i>	38.5 gm.	f. 3 mm. molt stom. c. caterpillars
✓ skel. 2648	♂ sk. ad.	<i>Phaenicticus chrysopleus</i>	74.2 gm.	f. 7x4 mm. molt.

July 15

2649	♂ sk. imm.	<i>Empidonax</i>	11.0 gm.	sk. st. 2 brood patch 3rupt. foll.
2650	♀ sk. ad.	<i>Vireo hypochryseus</i>	15.1 gm.	sl. fat.

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Catalog

Cañon de Lobos, 9 mi. E. Cuernavaca, Morelos, Mexico

July 15

	2651	♂ sk. imm.	Catherpes mexicanus	18.2 gm.	sk. st. 2	sl. fat.	
Mexico	2652	♂ sk. ad.	Thryothorus pleurostictus	20.2 gm.	t. 7x5 mm.	sl. fat.	worn
	2653	♂ sk. ad.	Melospiza kieneri	32.8 gm.	t. 11x8 mm.		stom. 2 insects
	2654	♂ sk. ad.	Aimophila humeralis	?	?		
	2655	♂ sk. ad.	Myiarchus nuttingi	29.2 gm.	t. 3 mm.	heavy molt.	
	2656	♂	Amazilia violiceps	5.2 gm.	t. 3 mm.		
Mexico	2657	♀ sk. ad.	Myiagraea viridicata	12.5 gm.	ovary 1	edem. brood patch	body molt.
	2658	♀ sk. ad.	Campostoma imberbe	8.5 gm.	ovary 1	stom. 2 larvae	1 Hymenoptera
	2659	♂ sk. ad.	Contopus richardsoni	13.0 gm.	t. 5 mm.	sl. fat.	
✓ skel.	2660	♂	Amazilia violiceps	5.5 gm.	t. 2 mm.		

July 16

	2661	♀ sk. ad.	Aechmophorus mexicanus	12.0 gm.	ovary 1	brood patch	
	2662	♂ sk. ad.	Vireo hypochryseus	14.0 gm.	t. 6x3 mm.	sl. fat stomach with	Lepid. larvae.
	2663	♂	Eugenes fulgens	8.1 gm.	t. 1 mm.	body molt.	stom. 2 insects
	2664	♀ sk. imm.	Catharus aurantiirostris	27.8 gm.	mod. fat.	heavy p.j. molt.	
	2665	♂ sk. ad.	Thryothorus pleurostictus	20.0 gm.	t. 8x4 mm.	cl. prot. end.	
	2666	♂ sk. ad.	Icterus pustulatus	40.4 gm.	t. 9x7 mm.	sl. fat.	
	2667	♂ sk. imm.	Ptilogonys cinereus	25.5 gm.	t. 1 mm.	p.j. molt.	
	2668	♀ sk. ad.	Tangavicus aeneus	54.9 gm.	ova - 8, 6, 4 mm.	mod. fat.	rupt. foll. egg in ovid.
	2669	♂ sk. imm.	Catharus aurantiirostris	17.0 gm.	t. < 1 mm.		
✓ skel.	2670	♀ sk. ad.	Vireo hypochryseus	16.0 gm.	ova - 9 mm, 2 mm, 1 mm	brood patch.	
✓ skel	2671	♀ sk. ad.	Melospiza kieneri	33.9 gm.	ova - 1 mm.		

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Catalog

Cañon de Lobos, 9 mi. E. Cuernavaca, Morelos, Mexico

July 16

✓skel.	2672	♂ sk. ad.	<i>Myiagapis viridicata</i>	13.0 gm.	t. 8 mm.
✓skel.	2673	♂ sk. ad.	<i>Catherpes mexicanus</i>	18.0 gm.	t. 4 mm.
✓skel.	2674	♂ sk. ad.	<i>Camptostoma imberbe</i>	8.8 gm.	t. 8x4 mm.

July 17

	2675	♂ sk. ad.	<i>Icterus wagleri</i>	41.3 gm.	t. 7x5 mm. 1st yr.
to Mexico	2676	♂ sk. ad.	<i>Phenictus chrysopygus</i>	68.6 gm.	Worm
to Mexico	2677	♀ sk. ad.	<i>Icterus wagleri</i>	41.7 gm.	ovary  worm
	2678	♂ sk. ad.	<i>Icterus pustulatus</i>	39.5 gm.	t. 8x5 mm.
	2679	♂ sk. ad.	<i>Aechmophorus mexicanus</i>	12.7 gm.	t. 7x4 mm. sl. i insects.
	2680	♂ sk. ad.	<i>Melospiza cinerea</i>	35.0 gm.	t. 9x6 mm. sl. fat. cl. not evl.
	2681	♀ sk. imm.	<i>Contopus richardsoni</i>	12.9 gm.	ov.  sl. fat. light body molt.
✓skel.	2682	♂ sk. ad.	<i>Tyrannus crassirostris</i>	54.0 gm.	t. 6 mm. body molt. 10 1 3/4, 2 1/2, 3 1/3, 4 from 5-10 del.
✓skel.	2683	♂ sk. ad.	<i>Thryothorus pleurostictus</i>	19.6 gm.	t. 8x6 mm.
✓skel.	2684	♀ sk. ad.	<i>Tangarus aeneus</i>	55.3 gm.	1 recently rupt. foll. no brood patch.
skel.	2685	♀ sk. ad.	<i>Aechmophorus mexicanus</i>	14.0 gm.	ovary granular edem. brood patch.
✓skel.	2686	♀ sk. ad.	<i>Vireo hypochryxus</i>	15.5 gm.	ova - 1 mm. sl. fat. brood patch.
✓skel.	2687	♀ sk. ad.	<i>Spinus psaltria</i>	9.8 gm.	ovary  sl. fat.

July 18

	2688	♂ sk. ad.	<i>Aimophila humeralis</i>	24.2 gm.	t. 7x4 mm.
	2689	♂ sk. imm.	<i>Aimophila humeralis</i>	16.3 gm.	skull st. #1. body molt.
	2690	♀ sk. imm.	<i>Aimophila humeralis</i>	15.2 gm.	sk. st. #1 body molt.

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Catalog

Cañon de Lobos, 9mi. E. Cuernavaca, Morelos, Mexico 4800± ft.

July 18

2691	♂ sk. ad.	<i>Aimophila humeralis</i>	26.1 gm.	t. 7x4 mm.	body molt
2692	♂ sk. ad.	<i>Aimophila humeralis</i>	25.0 gm.	t. 7x5 mm.	sl. fat.
2693	♂	<i>Chlorostilbon canescens</i>	3.9 gm.	t. ..	heavy molt.
2694	♂ sk. imm.	<i>Tangarus aeneus</i>	51.2 gm.	juv.	± juv. <i>Melanotis caerulescens</i>
2695	♀ sk. ad.	<i>Myiapagis viridicata</i>	11.1 gm.	ovum - 1 mm.	brood patch
✓ skel. 2696	♂ sk. ad.	<i>Icterus pustulatus</i>	37.7 gm.	t. 4 mm.	

July 19

Campylorhynchus jocosus~~*Phrynosoma pleurostictus*~~

alcoh. 2697			2.4 gms	< 1 day old.	
alcoh. 2698		<i>Tangarus aeneus</i>	18.3 gm.	sl. fat.	taken from <i>A. ruficauda</i> nest
2699	♂ sk. ad.	<i>Aimophila humeralis</i>	24.9 gm.	t. 6x4 mm.	± 2700
2700	♂ sk. imm.	<i>Aimophila humeralis</i>	17.2 gm.		fledgling
2701	♂ sk. imm.	<i>Aimophila humeralis</i>	26.6 gm.	t. 5x3 mm.	sl. fat. ± 2701.
2702	♂? sk. imm.	<i>Aimophila humeralis</i>	19.2 gm.		body molt.
2703	♂ sk. ad.	<i>Aimophila rufescens</i>	42.4 gm.	t. 8x6 mm.	stom. 80% veget. 20% animal
2704	♀ sk. ad.	<i>Molothrus ater</i>	30.2 gm.	ova - 3, 2 mm.	
2705	♂ sk. ad.	<i>Aimophila humeralis</i>	26.3 gm.	t. 8x6 mm.	
2706	♀ sk. imm.	<i>Aimophila humeralis</i>	24.3 gm.	ovary ¹³ no brood patch.	
2707	♂ sk. imm.	<i>Aimophila humeralis</i>	23.6 gm.	t. 5x4 mm.	
2708	♂ sk. imm.	<i>Aimophila humeralis</i>	25.4 gm.	t. 7x5 mm.	
skel. 2709	♂	<i>Aimophila humeralis</i>	26.6 gm.	t. 7x5 rect. ⁴ /	most worn
skel. 2710	♂	<i>Aimophila humeralis</i>	24.6 gm.	t. 8x5 mm rect. ⁴ /	most worn brood patch.
skel. 2711	♀	<i>Aimophila humeralis</i>	21.5 gm.	ovum - 1 mm.	
skel. 2712	♂	<i>Contopus richardsoni</i>	12.9 gm.	t. 4 mm.	

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Cañon de Lobos, 9 mi. E. Cuernavaca, Morelos, Mexico 7800 ± ft.

July 20.

	2713	♀	<i>Philortyx fasciatus</i>	147.9 gm.	hard shelled egg crop 2 seeds + beetles. 5 rupt. foll. ova 12, 15, 10, 5 mm no molt.
Mexico	2714	♂	<i>Philortyx fasciatus</i>	147.6 gm.	t. 11x7 mm @ 2713.
	2715	♂ sk. ad.	<i>Amaurospiza concolor</i>	14.5 gm.	t. 9x6 mm. stom. c. lepidop. larvae.
	2716	♂	<i>Cyananthus sordidus</i>	7.2 gm.	t. 3 mm.
	2717	♂ sk. imm.	<i>Aimophila humeralis</i>	26.8 gm.	t. 7x5 mm. sl. fat.
	2718	♂ sk. ad.	<i>Aimophila humeralis</i>	24.7 gm.	t. 6x4 mm. @ 2717, chattering, duetting.
	2719	♀ sk. imm.	<i>Campylorhynchus jocosus</i>	32.5 gm.	ova - 1 mm. brood patch. mouth - lining yellow
	2720	♂ sk. ad.	<i>Myiarchus nuttingii</i>	29.3 gm.	t. 3 mm. heavy molt.
✓ skel.	2721	♀ sk. ad.	<i>Aimophila humeralis</i>	24.2 gm.	ova - 2 mm. brood patch.

July 21

	2722	♂ sk. ad.	<i>Aimophila humeralis</i>	24.6 gm.	t. 9x5 mm. @ 2732
to Mexico	2723	♂ sk. imm.	<i>Turdus assimilis</i>	88.9 gm.	t. 3 mm. heavy molt.
	2724	♂ sk. imm.	<i>Tangarus aeneus</i>	51.9 gm.	t. " body molt.
	2725	♂ sk. ad.	<i>Thryothorus pleurostictus</i>	21.7 gm.	t. 8x5 mm.
	2726	♂ sk. imm.	<i>Eupidonax</i>	12.4 gm.	t. 2 mm.
	2727	♀ sk. imm.	<i>Melanotis caerulescens</i>	54.9 gm.	body molt - p.j.
	2728	♂ sk. imm.	<i>Melanotis caerulescens</i>	63.4 gm.	t. " p.j. molt
	2729	♂ sk. imm.	<i>Melanotis caerulescens</i>	59.1 gm.	t. " p.j. molt
✓ skel	2730	♀ sk. ad.	<i>Melanotis caerulescens</i>	61.9 gm.	brood patch ovary granular molt.
skel	2731	♀	<i>Myiagapis viridicata</i>	12.5 gm.	ov. granular brood patch
✓ skel	2732	♀	<i>Aimophila humeralis</i>	24.1 gm.	ov. gran. brood patch
✓ skel,	2733	♀ sk. ad.	<i>Icterus pusillus</i>	40.1 gm.	ov. granular brood patch molt

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10 mi. E Cuernavaca, 7700± ft., Morelos, Mexico

July 22

2734	♀	Centurus hypoleucus	79.1 gm. ovary ♂ body molt light body molt -
2735	♂ sk. imm.	Myiozetetes similis	30.2 gm. testes 11 sk. st. 3
2736	♀ sk. imm.	Aimophila humeralis	22.5 gm. ovary granular <u>no</u> brood patch -
2737	♂ sk. imm.	Aimophila ruficauda	25.7 gm. t. 8x5 mm. slight fat.
2738	♂ sk. imm.	Aimophila ruficauda	29.9 gm. t. 8x5 mm. sl. fat.
2739	♂ sk. ad.	Uolatinia jacarina	8.2 gm. t. 6x4 mm.
to Mexico 2740	♀ sk. ad.	Pyrocephalus rubines	14.0 gm. ovary ♂ light molt.
to Mexico 2741	♂	Cyananthus sordidus	3.5 gm t. 2 mm. brood patch ??
skel. 2742	♀	Philortyx fasciatus	147.5 gm. hard-shelled egg ova 17 mm.
skel. 2743	♀	Aimophila ruficauda	27.4 gm. ova - 2 mm. edem. brood patch lother large ovum.
✓ skel. 2744	♀	Aimophila humeralis	26.0 gm. yolk in oviduct brood patch
skel. 2745	♀	Aimophila humeralis	24.6 gm. ova - 2 mm. brood patch.

July 23

2746		Columbigitina passerina	11.5 gm. nestling alcoholic edem. brood patch
2747	♀ sk. ?	Aimophila ruficauda	28.1 gm. ova - 1 mm. sl. fat. oviduct small brood patch.
2748	♀ sk. ad.	Aimophila ruficauda	26.8 gm. ovary regressed ovum - 2 mm.
2749	♂ sk. ?	Aimophila ruficauda	30.3 gm. t. 8x4 mm. cl. prot. enl. sl.
2750	♂ sk. imm.	Aimophila ruficauda	27.4 gm. t. 8x4 mm. (1/2)
to Mexico 2751	♂ sk. ad.	Icterus pusillus	37.5 gm. t. 6x5 mm. worn body + flight feather molt.
2752	♂ sk. ad.	Camptostoma imberbe	8.6 gm. t. 2 mm.
2753	♂ sk. ad.	Uolatinia jacarina	8.9 gm. t. 7x5 mm. cl. prot. enl.
2754	♀ sk. ad.	Contopus richardsoni	11.8 gm. ovary granular brood patch

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Catalog

10 mi. E. Cuernavaca, 4700 ± ft., Morelos, Mexico

July 23

2755	♂ sk. ad.	<i>Aimophila ruficauda</i>	28.2 gm.	±, 7x5 mm. cl. prot. sl. ant.
2756	♂ sk. imm.	<i>Aimophila ruficauda</i>	28.4 gm.	±, 7x5 mm. sk. fat
skel. 2757	♀	<i>Aimophila ruficauda</i>	25.9 gm.	brood patch ov. granular rect. #1, #2 - new some down on brood patch
skel. 2758	♀	<i>Aimophila ruficauda</i>	25.6 gm.	ov. granular mod. fat. post-laying mod. fat.
skel. 2759	♀	<i>Aimophila ruficauda</i>	27.3 gm.	ova - 2 mm brood patch post-laying mod. fat.
skel 2760	♀	<i>Aimophila ruficauda</i>	27.3 gm.	ova - 2 mm brood patch brood patch
skel 2761	♀	<i>Crotophaga sulcirostris</i>	91.3 gm.	ova - 15, 11 mm.
✓ skel 2762	♂	<i>Icterus pustulatus</i>	37.7 gm.	±, 5x3 mm. I = 1-1/3 gr. 2 - shrub
skel 2763	♂	<i>Camptostoma imberbe</i>	8.2 gm.	± 2 mm. body molt. 3-10 old.

Cañon de Lobos, 9 mi. E Cuernavaca, 4800 ± ft., Morelos, Mexico

- July 23

skel. 2764	♀	<i>Tangarus alneus</i>	53.3 gm.	at least 2 ovt. foll. 1 enlarged ovum.
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July 24

2765	♀ sk. imm.	<i>Turdus assimilis</i>	75.1 gm.	jav. sl. fat. body molt sk. st. 1
2766	♂ sk. imm.	<i>Melanotis caerulescens</i>	58.7 gm.	p.j. molt testes 00
2767	♀ sk. imm.	<i>Turdus undulatus</i>	67.7 gm.	body molt sk. #1
2768	♀	<i>Dendrocopos scalaris</i>	27.3 gm.	ovary 13
2769	♀ sk. imm.	<i>Catherus aurantirostris</i>	26.2 gm.	ovary 8 body molt. skull st. #1.
2770	♂ sk. ad.	<i>Thryothorus pleurostictus</i>	20.1 gm.	testis 9x6 mm cl. prot. ant. just beginning p.j. body molt.
to Mexico 2771	0? sk. imm.	<i>Contopus richardsoni</i>	12.4 gm.	body molt. sl. fat.
2772	♀	<i>Catherus aurantirostris</i>	3.4 gm	ovary 8 heavy molt.

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Catalog

Cañon de Lobos, 9 mi. E. Guamavaca, 7800 ± ft., Morelos, Mexico

July 24

✓ 2773	♂ sk. ad.	Platypsaris aglaiae	29.1 gm.	t. 11 x 7 mm.
✓ 2774	♂ sk. ad.	Melospiza cinerea	32.4 gm.	t. 9 x 6 mm. cl. prot. ent.
2775	♂ sk. ad.	Thryothorus pleurostictus	19.7 gm.	t. 9 x 6 mm.
2776	♀	Centurus chrysogenys	67.9 gm.	juv. I. 1-1/3 gr. 2-shed 3-10-old.
✓ 2777	♀	Myiarchus	18.0 gm.	brood patch ovary
✓ 2778	♂ sk. ad.	Vireo hypochryseus	14.3 gm.	t. 4 mm.
✓ 2779	♂	Amazilia violiceps	5.5 gm.	t. 2 mm.
2780	0? sk.	Amazilia violiceps	4.0 gm.	heavy molt.

July 25

— 2781	♀? sk. imm.	Aimophila ruficauda	13.6 gm.	fledgling
— 2782	♀	Aimophila ruficauda	12.9 gm.	fledgling
2783	♂ sk. ad.	Aimophila ruficauda	26.1 gm.	t. 8 x 5 mm. c 2782, 2785
2784	♀ sk. ad.	Aimophila ruficauda	25.4 gm.	ovary edem. brood patch.
2785	♂ sk. imm.	Aimophila ruficauda	26.6 gm.	t. 7 x 4 mm.
2786	♀ sk. imm.	Phaethon chrysopleurus	72.7 gm.	sk. st. #1.
2787	♂ sk. imm.	Platypsaris aglaiae	29.3 gm.	t. 11 sl. fat. p. j. molt.
2788	♂ sk. ad.	Melospiza cinerea	34.5 gm.	t. 10 x 6 mm. cl. prot. ent.
2789	♂ sk. ad.	Aimophila ruficauda	27.8 gm.	t. 7 x 4 mm.
skel 2790	♂ sk. ad.	Melospiza cinerea	36.1 gm.	t. 10 x 6 mm. cl. prot. ent.

July 26

2791	♂ sk. imm.	Turdus	73.0 gm.	t. 11 mod. fat. body molt
2792	♀ sk. imm.	Turdus	87.3 gm.	body molt, sl. fat.

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Catalog

Cañon de Lobos, 9 mi. E. Cuernavaca, 7800±ft., Morelos, Mexico

July 26

2793	♀ sk. imm.	Turdus	71.0 gm.	p.j. molt. sl. fat. sk. st. 2
2794	♂ sk. ad.	Basileuterus rufifrons	10.5 gm.	t. 6x4 mm. refeat. brood patch. 4-9-00d.
2795	♀ sk. ad.	Phenicticus chrysopleus	74.6 gm.	ovary I ^o 1-1/3 2-1/4-3 sheets
2796	♀ sk. imm.	Myiapagis viridicata	10.4 gm.	ovary 8 sk. st. 2.
2797	♂ sk. imm.	Petrochelidon pyrrhonota	17.3 gm.	testes 00 sk. stage 2
2798	♂	Phylortyx fasciatus	124.3 gm.	t. 11x6 mm. ^{killed by game warden}
2799	♂ sk. ad.	Stelgidopteryx ruficollis	15.1 gm.	t. 2 mm. molt.
2800	♂ sk. imm.	Stelgidopteryx ruficollis	14.8 gm.	t. 00 p.j. molt. sk. st. 2
2801	♀ sk. ad.	Aimophila humeralis	22.6 gm.	ova - 1 mm. ^{no brood patch.} sheath on brood area brood patch.
skel 2802	♀ sk. ad.	Vireo flavoviridis	18.1 gm.	ovary granular

July 27

2803		Campylorhynchus jocosus	19.1 gm.	nestling - covered with butterflies
2804 2804	♀ sk. imm.	Catharus aurantirostris	27.9 gm.	p.j. molt. sl. fat.
2805	♂ sk. ad.	Melospiza cinerea	36.8 gm.	t. 10x5 mm. cl. prot. enl.
2806	♂ sk. ad.	Melospiza cinerea	35.2 gm.	t. 9x6 mm. cl. prot. enl. parent of 2803
2807	♀ sk. ad.	Campylorhynchus jocosus	29.4 gm.	ova - 1 mm. clear brood patch.
2808	♂ sk. imm.	Empidonax	12.0 gm.	t. 00 p.j. molt.
2809	♀ sk. imm.	Myiapagis viridicata	11.1 gm.	p.j. molt.
2810	♀ sk. imm.	Myiapagis viridicata	11.5 gm.	p.j. molt.
skel. 2811	♂ sk. ad.	Myiapagis viridicata	13.0 gm.	t. 7x4 mm. brood patch postnupt. molt idem. brood patch
skel. 2812	♀	Melospiza cinerea	34.4 gm.	small rupt. foll. brood patch.
skel. 2813	♀	Melospiza cinerea	31.3 gm.	ovum - 2 mm. vest minute

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Catalog

1 mi. SW. Acatlipa, Morelos, Mexico

July 28

2814	♀	<i>Certhia hypoleuca</i>	57.9 gm.	ovary 3 sl. fat.
2815	♂ sk. ad.	<i>Aimophila ruficauda</i>	30.2 gm.	t. 7x5 mm. stomach 25% veget. 75% animal
2816	♂ sk. ad.	<i>Aimophila humeralis</i>	24.8 gm.	t. 8x6 mm. stomach 75% animal 25% vegetable.
2817	♀ sk. ad.	<i>Aimophila humeralis</i>	24.0 gm.	ova - 1 mm. edem. brood patch

Canon de Lobos, 9 mi. E. Cuernavaca, 4800 ft., Morelos, Mexico

July 29

2818		<i>Aimophila humeralis</i>	2.6 gm.	< 1 day old. alcoholic
2819	♂ sk. ad.	<i>Thryothorus pleurostictus</i>	20.7 gm.	t. 8x5 mm. d. prot. sl. enl.
2820	♂ sk. ad.	<i>Basilentornis rufifrons</i>	10.2 gm.	t. 6x4 mm.
2821	♂ sk. imm.	<i>Platypsaris aglaiae</i>	31.5 gm.	t. oo sk. st. 3 ova - 2 mm. (yellow)
2822	♀	<i>Chlorostilbon canivetii</i>	2.8 gm.	1 rupt. foll. edem. brood patch.
2823	♀ sk. ad.	<i>Platypsaris aglaiae</i>	33.5 gm.	light body molt ovary granular
2824	♂ sk. imm.	<i>Empidonax</i>	13.6 gm.	testes or heavy molt.
2825	♂ sk. ad.	<i>Vireo hypobryseus</i>	14.0 gm.	t. 6x3 mm. light head molt.
skel. 2826	♂	<i>Myiozetetes similis</i>	33.9 gm.	t. 4 mm. heavy molt.
skel. 2827	♂ sk. ad.	<i>Aimophila humeralis</i>	25.9 gm.	t. 8x5 mm. no enlarged ova.
skel. 2828	♀ sk. ad.	<i>Vireo hypochryseus</i>	16.3 gm.	3 rupt. foll. brood patch.

5 mi. NW. Coyuca, 500 ± ft., Guerrero, Mexico

July 30

2829	♂ sk. ad.	<i>Aimophila ruficauda</i>	29.2 gm.	t. 6x4 mm. with 2830 brood patch stom - 100% vegetable.
2830	♀ sk. imm.	<i>Aimophila ruficauda</i>	29.2 gm.	ova - 2 mm. brood patch - st. 2
skel. 2831	♀ sk. ad.	<i>Aimophila ruficauda</i>	28.8 gm.	ova - 1 mm. stom with 100% vegetable fed by parents. could barely fly.
2832	♀ sk. imm.	<i>Poliostila albilava</i>	6.1 gm.	stom - lepidop. larvae

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Catalog

NW.
5 mi. S. Coyuca, 500± ft., Guerrero, Mexico

July 31

2833	♀ sk. imm.	<i>Aimophila ruficauda</i>	31.6 gm.	no laying yet. ova - 3, 5± mm. brood patch.
2834	♂ sk. ad.	<i>Aimophila ruficauda</i>	28.0 gm.	t. 7x4 mm. sl. - mod. fat.
2835	♂ sk. imm.	<i>Aimophila ruficauda</i>	27.2 gm.	t. 7x4 mm. sl. fat.
2836	♂ sk. ad.	<i>Aimophila ruficauda</i>	31.0 gm.	t. 9x5 mm. sl. fat.
2837	♂ sk. ad.	<i>Aimophila ruficauda</i>	32.7 gm.	t. 7x4 mm. body molt.
2838	♂ sk. ad.	<i>Aimophila ruficauda</i>	28.3 gm.	t. 7x5 mm. sl. fat = 2838
2839	♂ sk. imm.	<i>Aimophila ruficauda</i>	28.7 gm.	t. 7x5 mm. mod. fat.
2840	♀ sk. imm.	<i>Aimophila ruficauda</i>	28.1 gm.	ova - 4, 2 mm. ^{sl. fat} <u>no</u> brood patch = 2840
2841	♂ sk. imm.	<i>Aimophila ruficauda</i>	32.0 gm.	t. 6x4 mm. sl. fat.
2842	♂ sk. ad.	<i>Aimophila ruficauda</i>	27.0 gm.	t. 7x4 mm. = 2843.
2843	♀ sk. ad.	<i>Aimophila ruficauda</i>	29.6 gm.	ova - 5, 5 mm. brood patch.
2844	♀ sk. imm.	<i>Aimophila humeralis</i>	24.7 gm.	no brood patch. ova - 1 mm. stom. - 100% veget. brood patch.
2845	♀	<i>Morococcyx erythropygius</i>	62.9 gm.	ovary enlarged sk. st. 3-4 to front.
2846	♂ sk. imm.	<i>Campylorhynchus ruficauda</i>	26.7 gm.	t. 5x3 mm.
2847	♂ sk. ad.	<i>Arremonops rufivirgata</i>	23.0 gm.	t. 9x6 mm.
2848	♂ sk. ad.	<i>Arremonops rufivirgata</i>	25.4 gm.	t. 8x6 mm.

August 1

2849	♀ sk. imm.	<i>Aimophila ruficauda</i>	31.1 gm.	edem. brood patch. ova - 10, 3, 1 rupt. foll. sl. fat.
2850	♂ sk. imm.	<i>Aimophila ruficauda</i>	30.9 gm.	t. 8x5 mm. cl. prot. sl. en l.
2851	♂ sk. ad.	<i>Aimophila ruficauda</i>	25.1 gm.	t. 6x4 mm. edem. brood patch.
2852	♀ sk. ad.	<i>Aimophila ruficauda</i>	30.4 gm.	3 rupt. foll. brood patch.
2853	♀ sk. ad.	<i>Aimophila ruficauda</i>	29.1 gm.	2 rupt. foll. (at least) ova - 2 mm.
2854	♂ sk. ad.	<i>Aimophila ruficauda</i>	30.7 gm.	t. 7x4 mm.
2855	♂ sk. ad.	<i>Aimophila ruficauda</i>	30.5 gm.	t. 7x5 mm.

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Catalog

22 mi. S. Chilpancingo, 2400± ft., Guerrero, Mexico

on Mex. R. 95

August 2

2856	♂ sk. ad.	<i>Aimophila rufescens</i>	47.9 gm.	t. 9x5 mm.
2857	♂ sk. ad.	<i>Aimophila rufescens</i>	39.8 gm.	t. 8x5 mm.
2858	♂ sk. ad.	<i>Aimophila rufescens</i>	41.3 gm.	t. 7x5 mm.
2859	♂ sk. ad.	<i>Aimophila rufescens</i>	40.8 gm.	t. 9x6 mm.
2860	♀ sk. ad.	<i>Aimophila rufescens</i>	41.6 gm.	brood patch ova - 1 mm. ^{prob. getting set to} ^{oviposition} post-brood.
2861	♀ sk. imm.	<i>Aimophila rufescens</i>	34.6 gm.	ovary 1 juv.
2862	♀ sk. ad.	<i>Aimophila rufescens</i>	38.8 gm.	brood patch ova - 2 mm. ♂ 2861
2863	♀ sk. ad.	<i>Aimophila rufescens</i>	39.0 gm.	brood patch ova 3+, 2 mm.
2864	♂ sk. ad.	<i>Aimophila rufescens</i>	42.4 gm.	t. 10x7 mm.
2865	♀ sk. ad.	<i>Aimophila rufescens</i>	38.2 gm.	ova < 1 mm. brood patch
skel. 2866	♂ sk. ad.	<i>Aimophila rufescens</i>	38.2 gm.	t. 8x5 mm.

5 mi. E Cuernavaca, 5900± ft., Morelos, Mexico on road to Tepoztlán

August 3


2867	♂ sk. ad.	<i>Aimophila rufescens</i>	40.1 gm.	t. 8x6 mm. cl. prot. skel.
2868	♂ sk. ad.	<i>Aimophila rufescens</i>	37.2 gm.	t. 8x6 mm. cl. prot. sk. ent. parent of 2870
2869	♂ sk. ad.	<i>Aimophila rufescens</i>	40.2 gm.	t. 9x6 mm. cl. prot. sk. ent.
2870	♂ sk. imm.	<i>Aimophila rufescens</i>	39.8 gm.	t. .. skull st. 1
2871	♂ sk. ad.	<i>Vireo hypochryseus</i>	14.7 gm.	t. 7x4 mm.
2872	♀ sk. ad.	<i>Spizella passerina</i>	13.3 gm.	brood patch. ovary granular
2873	♀ sk. ad.	<i>Melospiza cinerea</i>	29.9 gm.	ova - 1 mm. brood patch.
2874	♀ sk. ad.	<i>Basileuterus rufifrons</i>	9.6 gm.	brood patch. ovary granular

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Catalog

5 mi. E. Cuernavaca, 5900±ft., Morelos, Mexico

August 7

	2875	♀ sk. ad.	<i>Aimophila rufescens</i>	38.0 gm.	ovary  brood patch.
	2876	♂ sk. imm.	<i>Aimophila rufescens</i>	37.7 gm.	t. 8x6 mm. sl. fat
	2877	♂ sk. imm.	<i>Aimophila rufescens</i>	40.6 gm.	t. 10x5 mm. sl. fat.
	2878	♂ sk. ad.	<i>Aimophila rufescens</i>	42.5 gm.	t. 8x6 mm. sl. fat.
	2879	♂ sk. imm.	<i>Myiapagis viridicata</i>	11.9 gm.	t. " juvenile
	2880	♀ sk. imm.	<i>Basileuterus rufifrons</i>	11.1 gm.	ovary & juvenile
	2881	♂ sk. imm.	<i>Myiapagis viridicata</i>	13.0 gm.	t. 8x4 mm. brood patch. molt
	2882	♀ sk. ad.	<i>Pyrocephalus rubinus</i>	15.5 gm.	ovary & refeath. brood patch body worn
skel.	2883	♀	<i>Aimophila rufescens</i>	37.0 gm.	ova-2, 1 mm. brood patch

August 5

to Mexico	2884	♂ sk. imm.	<i>Catharus aurantiirostris</i>	29.0 gm.	t. 10x6 mm. sl. fat. ^{worn}
	2885	♀ sk. imm.	<i>Aimophila rufescens</i>	37.9 gm.	p.j. molt sl. st. 1
	2886	♀ sk. imm.	<i>Melospiza cinerea</i>	19.9 gm.	nestling stomach with goit + insect chitin
	2887	♂	<i>Chlorostilbon canivetii</i>	2.5 gm.	t. 2 mm.
	2888	♂	<i>Piranga flava</i>	36.9 gm.	t. 2 mm. molts sl. fat.
	2889	♀ sk. ad.	<i>Aimophila rufescens</i>	38.0 gm.	ova-1 mm. edem. brood patch.
	2890	♂ sk. ad.	<i>Aimophila rufescens</i>	39.2 gm.	t. 8x6 mm. sl. fat.
	2891	♂ sk. ad.	<i>Aimophila rufescens</i>	44.3 gm.	t. 9x5 mm. sl. fat.
	2892	♂ sk. ad.	<i>Aimophila rufescens</i>	43.0 gm.	t. 7x4 mm.
	2893	♂ sk. ad.	<i>Aimophila rufescens</i>	39.5 gm.	t. 10x6 mm.
to Mexico	2894	♀ sk. ad.	<i>Vireo hypochryseus</i>	13.6 gm.	ovary  edem. brood patch ^{worn}
skel.	2895	♂	<i>Dendrocopos scalaris</i>	30.3 gm.	t. 2 mm.

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Catalog

5 mi. E. Cuernavaca, 5900±ft., Morelos, Mexico

August 5

skel	2896	♂ sk. ad.	<i>Basileuterus rufifrons</i>	10.7 gm.	t. 7x4 mm.
skel	2897	♂	<i>Aimophila rufescens</i>	41.8 gm.	t. 10x6 mm
skel	2898	♀	<i>Aimophila rufescens</i>	34.7 gm.	ovary 3 edem. brood patch body postnax. molts
skel	2899	♀	<i>Aimophila rufescens</i>	39.7 gm.	ovary 6 brood patch

7.5 mi. N. Cuernavaca, 7400±ft., Morelos, Mexico km. 60 on R. 95

August 6

	2900	♂ sk. imm.	<i>Pipilo erythrophthalmus</i>	51.9 gm.	t. 1 mm. p.j. molt
	2901	♂ sk. imm.	<i>Atlapetes pileatus</i>	22.6 gm.	t. 6x5 mm.
to Mexico	2902	♂ sk. ad.	<i>Catharus occidentalis</i>	26.0 gm.	t. 2 mm skull st. 7.
	2903	♂ sk. ad.	<i>Empidonax</i>	10.1 gm.	t. 2 mm p.j. molt
	2904	♂ sk. imm.	<i>Atlapetes virgatus</i>	34.3 gm.	t. 1 mm. sk. st. 1 p.j. molt
	2905	♂ sk. imm.	<i>Catharus occidentalis</i>	25.4 gm.	t. 1 mm. sk. st. 1
	2906	♀ sk. ad.	<i>Junco phaeonotus</i>	18.9 gm.	ovary 0 brood patch
	2907	♂ sk. ^{imm.} ad.	<i>Vireo huttoni</i>	12.3 gm.	t. 1 mm. molt.

5 mi. E. Cuernavaca, 5900±ft., Morelos, Mexico

August 7

	2908	♂ sk. ad.	<i>Aimophila rufescens</i>	39.2 gm.	t. 11x6 mm. sl. fat. 2909
	2909	♀ sk. ad.	<i>Aimophila rufescens</i>	37.1 gm.	ovary sl. ed. ova-2 mm. brood patch
	2910	♂ sk. ad.	<i>Aimophila rufescens</i>	43.9 gm.	t. 8x7 mm. sl. fat 2911
	2911	♀ sk. ad.	<i>Aimophila rufescens</i>	38.9 gm.	pre-breeding ova-2 mm. brood patch
	2912	♂ sk. ad.	<i>Aimophila rufescens</i>	40.6 gm.	t. 7x5 mm.

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Catalog

5 mi. E. Cuernavaca, 5900± ft., Morelos, Mexico

August 7

2913	♂ sk. ad.	<i>Aimophila rufescens</i>	36.4 gm.	t. 7x5 mm.	sl. fat.
2914	♂ sk. ad.	<i>Aimophila rufescens</i>	41.9 gm.	t. 10x6 mm.	sl. fat.
2915	♂ sk. ad.	<i>Aimophila rufescens</i>	38.8 gm.	t. 9x5 mm.	sl. fat.
2916	♂ sk. ad.	<i>Myiarchus tuberculifer</i>	17.6 gm.	t. 4 mm.	sl. fat. ^{c + same as LLW 2917} back molt.
skel 2917	♀ sk. ad.	<i>Myiarchus</i>	16.4 gm.	ovary &	brood patch

7.5 mi. N. Cuernavaca, 7400± ft., Morelos, Mexico

August 8

2918	♀ sk. ad.	<i>Atlapetes virenticeps</i>	34.2 gm.	ovary &	body molt stom c brood patch seeds 1 mm. refect. brood patch.
2919	♀	<i>Dendrocopos stricklandi</i>	37.8 gm.	ovary &	body molt stom - 100% insects iris - greenish yellow
2920	♀ sk. ad.	<i>Vireolanus melitophrys</i>	35.9 gm.	ovary &	brood patch stom - 100% insects
2921	♂	<i>Dendrocopos villosus</i>	53.9 gm.	t. 1 mm.	stom - 100% insects.
2922	♂ sk. ad.	<i>Campylorhynchus megalopterus</i>	37.9 gm.	t. 8x5 mm.	sl. fat. body molt.
2923	♂ sk. ad.	<i>Contopus pertinax</i>	27.7 gm.	t. 2 mm.	stom - 100% insects
2924	♂ sk. ad.	<i>Mitrephanes phaeocercus</i>	9.1 gm.	t. 2 mm.	
2925	♂? sk. imm.	<i>Junco phaeonotus</i>	20.1 gm.	sl. fat.	sk. st. 1 juvenile postup. molt
2926	♂ sk. ad.	<i>Piranga flava</i>	38.8 gm.	t. 2 mm.	body molt sl. fat.
to Mexico	2927	♂ sk. imm.	<i>Campylorhynchus megalopterus</i>	31.5 gm.	t. 2 mm. molt.
skel.	2928	♀ sk. imm.	<i>Campylorhynchus megalopterus</i>	29.2 gm.	ov. & body molt.

August 9

2929	♀ sk. ad.	<i>Certhia familiaris</i>	7.7 gm.	ovary &	light body molt. stom. 75% seeds 25% insects
2930	♀ sk. ad.	<i>Atlapetes virenticeps</i>	36.8 gm.	ovary &	postup. molt.
2931	♂ sk. ad.	<i>Atlapetes virenticeps</i>	38.7 gm.	t. 2 mm.	

LWoff
1969

Catalog

7.5 mi. N. Cuernavaca, 7400 ± ft., Morelos, Mexico

August 9

- | | | | | | |
|------|------------|--------------------------------|----------|------------|-------------------------------|
| 2932 | ♀ sk. ad. | <i>Loxia curvirostra</i> | 39.0 gm. | ova - 2mm. | oviduct sl. cont.
sl. fat. |
| 2933 | ♂ sk. ad. | <i>Loxia curvirostra</i> | 40.0 gm. | t. 6x4mm. | ̄ 2932 |
| 2934 | ♂? sk. ad. | <i>Pseudotsamias taeniatus</i> | 10.1 gm. | | sl. fat. |

5 mi. E. Cuernavaca, 5900 ± ft., Morelos, Mexico

August 9

- | | | | | | |
|------|-----------|----------------------------|----------|---------------|--|
| 2935 | ♀ sk. ad. | <i>Aimophila rufescens</i> | 37.5 gm. | ov. sl. cont. | |
| 2936 | ♂ sk. ad. | <i>Aimophila rufescens</i> | 41.0 gm. | t. 11x6mm. | |

7.5 mi. N. Cuernavaca, 7400 ± ft., Morelos, Mexico

August 10

- | | | | | | |
|------|-------------|---------------------------------|----------|-----------|-------------------------------|
| 2937 | ♂ sk. imm. | <i>Troglodytes brunnicollis</i> | 12.6 gm. | t. < 1mm. | sk. st. 1 sl. fat. |
| 2938 | ♂ sk. imm. | <i>Mitrophanes phaeocercus</i> | 8.3 gm. | t. < 1mm. | body molt sl. fat. |
| 2939 | ♂? sk. imm. | <i>Catharus occidentalis</i> | 27.1 gm. | | body molt. sl. fat. |
| 2940 | ♀ sk. imm. | <i>Sitta carolinensis</i> | 17.7 gm. | ovary 0 | sk. st. 2-3 body molt |
| 2941 | ♀ sk. ad. | <i>Atlapetes pileatus</i> | 21.9 gm. | ovary 2 | |
| 2942 | ♂ sk. imm. | <i>Atlapetes pileatus</i> | 23.3 gm. | t. 3mm. | sl. fat. ̄ 2941 |
| 2943 | ♂ sk. imm. | <i>Empidonax</i> | 12.3 gm. | t. < 1mm. | mod. fat. sk. st. 2 |
| 2944 | ♀ sk. imm. | <i>Erqaticus ruber</i> | 8.2 gm. | | sk. st. 2 body molt. sl. fat. |

2 mi. N. Tres Cumbres, 9100 ± ft., Morelos, Mexico

August 11

- | | | | | | |
|------|------------|------------------------------|----------|---------|----------------------|
| 2945 | ♂ sk. imm. | <i>Oriturus superciliosa</i> | 40.4 gm. | t. 1mm. | sl. fat. sk. st. 2-3 |
| 2946 | ♀ sk. imm. | <i>Empidonax</i> | 11.0 gm. | ovary 0 | sl. fat. |

Catalog

2 mi. N. Tres Cumbres, 9100 ± ft., Morelos, Mexico

August 11

	2947	0? sk. imm.	<i>Oriturus superciliosa</i>	36.3 gm.	sk. st. 1
	2948	♀? sk. imm.	<i>Oriturus superciliosa</i>	39.9 gm.	sl. fat. sk. st 1-2
	2949	♂ sk. ad.	<i>Oriturus superciliosa</i>	40.7 gm.	f. 9x6 mm. sl. fat
	2950	♂ sk. ad.	<i>Oriturus superciliosa</i>	39.2 gm.	f. 9x6 mm. sl. fat.
	2951	♂ sk. ad.	<i>Oriturus superciliosa</i>	34.7 gm.	f. 7x6 mm. sl. fat.
	2952	♂ sk. ad.	<i>Oriturus superciliosa</i>	42.7 gm.	f. 10x6 mm. sl. fat.
	2953	♂	<i>Dendrocopos stricklandi</i>	40.5 gm.	f. 1 mm. body molt. mod. fat.
	2954	♂ sk. ad.	<i>Loxia curvirostra</i>	38.0 gm.	f. 4x3 mm. body molt.
	2955	♂	<i>Dendrocopos stricklandi</i>	37.3 gm.	f. 1 mm. body molt.
	2956	0? sk. imm.	<i>Myioborus miniatus</i>	8.6 gm.	p.j. molt. sk. st. 1
	2957	♂ sk. ad.	<i>Spinus pinus</i>	11.0 gm.	f. 2 mm. sl. fat.
skel.	2958	♀ sk. ad.	<i>Loxia curvirostra</i>	40.8 gm.	ovary Δ heavy fat. I ^o - 1-4 new
skel.	2959	♂	<i>Dendrocopos villosus</i>	55.8 gm.	f. 1 mm. 5-11/3 6-10-old
skel.	2960	♂ sk. ad.	<i>Oriturus superciliosa</i>	40.6 gm.	f. 10x6 mm.
skel.	2961	♂ sk. ad.	<i>Oriturus superciliosa</i>	39.3 gm.	f. 9x6 mm.
skel.	2962	♂	<i>Selaphorus platycercus</i>	3.3 gm.	f. 3 mm.
skel.	2963	♀ sk. ad.	<i>Spinus pinus</i>	11.8 gm.	ovary Δ
skel.	2964	♂ sk. imm.	<i>Dend. Peucedramus faenatus</i>	10.1 gm.	f. Δ I ^o 6-1/3 7-10-old.
skel.	2965	♀	<i>Tachycineta thalassinus</i>	15.1 gm.	ovary Δ 2-missing.

1 mi. SE. Tanagulapan, Oaxaca, Mexico 6200 ± ft.

August 12



	2966	♀ sk. imm.	<i>Spizella atrogularis</i>	13.6 gm.	light body molt sl. fat. sk. st. 1
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LHW014
1964

Catalog




1 mi. SE. Tamazulapan, 6200± ft., Oaxaca, Mexico

August 13

2967	♂ sk. ad.	<i>Aimophila notosticta</i>	28.4 gm.	st. fat. t. 7x5 mm. cl. prot. sl. enl.
2968	♀ sk. ad.	<i>Toxostoma ocellatum</i>	80.0 gm.	ovary  brood patch sk. st. 2
2969	♀ sk. imm.	<i>Poliophtila caerulea</i>	6.5 gm.	ovary  light body molt
2970	♂ sk. ad.	<i>Aimophila notosticta</i>	30.2 gm.	t. 7x4 mm. cl. prot. enl.
2971	♂ sk. imm.	<i>Aimophila ruficeps</i>	19.3 gm.	t. 1 mm. body molt.
2972	♂ sk. ad.	<i>Aimophila ruficeps</i>	20.3 gm.	with 2971 t. 8x6 mm. cl. prot. enl.
2973	♂ sk. ad.	<i>Aimophila ruficeps</i>	20.4 gm.	t. 8x6 mm. cl. prot. enl.
2974	♂ sk. ad.	<i>Empidonax</i>	11.5 gm.	t. 2 mm. mod. fat.
2975	0? sk. ad.	<i>Salpinctes obsoletus</i>	18.7 gm.	post-nup. molt.
skel. 2976	♂ sk. ad.	<i>Aimophila ruficeps</i>	20.8 gm.	t. 9x6 mm. cl. prot. enl. J ⁰ - 1-1/2 2-gone 3-10-old
skel. 2977	0?	<i>Toxostoma ocellatum</i>	84.8 gm.	brood patch body molt. J ⁰ 1+2 sheathed body molt.
skel. 2978	♂ sk. ad.	<i>Vireo bellii</i>	9.2 gm.	t. 2 mm.

4 1/2 mi. SW. Matatlan, 6100± ft., Oaxaca, Mexico

August 14

2979	♂ sk. ad.	<i>Neochloe brevipennis</i>	12.3 gm.	t. 2 mm. body molt.
2980	♀ sk. ad.	<i>Aimophila notosticta</i>	29.0 gm.	ovary sl. enl. brood patch.
2981	♀ sk. imm.	<i>Aimophila ruficeps</i>	19.0 gm.	ovary  sl. fat.
2982	♀ sk. imm.	<i>Aimophila ruficeps</i>	18.1 gm.	ovary  sl. fat. sk. st. 1
2983	♂ sk. ad.	<i>Aimophila notosticta</i>	27.1 gm.	t. 7x4 mm. cl. prot. enl.
2984	♂ sk. imm.	<i>Aimophila ruficeps</i>	18.0 gm.	t. 1 mm. body molt. iris gray
2985	♂ sk. imm.	<i>Neochloe brevipennis</i>	12.3 gm.	t. 1 mm. p.j. molt.
2986	♂ sk. ad.	<i>Aimophila ruficeps</i>	20.0 gm.	t. 11x6 mm.
2987	♀ sk. ad.	<i>Aimophila mystacalis</i>	21.1 gm.	ov.  no brood patch

LLWOLF
1964

Catalog

1 mi. N. 21 Tule, 5400± ft., Oaxaca, Mexico

August 14

2988	♂ sk. ad.	<i>Aimophila</i> <i>botteri</i>	23.8 gm. t. 10x6 mm. cl. prot. cul. body molt.
2989	♂ sk. ad.	<i>Aimophila</i> <i>botteri</i>	22.7 gm. t. 10x6 mm. cl. prot. cul.
2990	♂ sk. ad.	<i>Aimophila</i> <i>botteri</i>	23.1 gm. t. 11x6 mm. cl. prot. cul.

10 mi. SW. Matatlan, 5800± ft., Oaxaca, Mexico Km. 605 on R. 190

August 15

2991	♀ sk. imm.	<i>Aimophila</i> <i>mystacalis</i>	20.2 gm. ovary B body molt.
2992	♂ sk. ad.	<i>Aimophila</i> <i>mystacalis</i>	t.
2993	♂ sk. ad.	<i>Aimophila</i> <i>mystacalis</i>	22.5 gm. t. 9x6 mm. body + wing 1 st IO molt.
2994	♀ sk. ad.	<i>Aimophila</i> <i>mystacalis</i>	22.3 gm. ovary B brood patch
2995	♂ sk. imm.	<i>Aimophila</i> <i>ruficeps</i>	19.8 gm. t. " body molt.

11 mi. SW. Matatlan, 5600± ft., Oaxaca, Mexico

August 15

2996	♂ sk. ad.	<i>Poliophtila</i> <i>albitoris</i>	6.7 gm. t. 1 mm. body molt.
2997	♀ sk. ad.	<i>Poliophtila</i> <i>albitoris</i>	6.4 gm. ovary B brood patch.
2998	♂ sk. ad.	<i>Aimophila</i> <i>mystacalis</i>	20.5 gm. t. 8x6 mm.
3000	♂ sk. ad.	<i>Aimophila</i> <i>mystacalis</i>	24.8 gm. t. 9x6 mm. sl. fat.
2999	♂ sk. ad.	<i>Poliophtila</i> <i>albitoris</i>	
3001	♂ sk. imm.	<i>Aimophila</i> <i>mystacalis</i>	17.7 gm. t. 1 mm. fledgling
skel 3002	♂ sk. ad.	<i>Aimophila</i> <i>mystacalis</i>	22.1 gm. t. 10x6 mm.
skel 3003	♀ sk. ad.	<i>Aimophila</i> <i>mystacalis</i>	23.7 gm. ova - 1 mm. edema. brood patch
skel 3004	♀ sk. ad.	<i>Aimophila</i> <i>mystacalis</i>	20.7 gm. ovary B brood patch st. 4
skel 3005	♂ sk. ad.	<i>Aimophila</i> <i>mystacalis</i>	22.0 gm. t. 7x5 mm.

LLWof
1964

Catalog

16.5 mi. SW Matatlan, 7200± ft., Oaxaca, Mexico

August 16

3006	♀	<i>Monotus mexicanus</i>	78.7 gm.	ovary 1	sl. fat.
3007	♂	<i>Centurus hypopolius</i>	54.5 gm.	t. 2 mm.	stom. c seeds O-size
3008	♂ sk. imm.	<i>Aimophila mystacalis</i>	23.6 gm.	t. 10	p.j. molt. sl. fat. no brood patch
3009	♀ sk. imm.	<i>Aimophila mystacalis</i>	23.8 gm.	ovary 1	sk. st. 2-3. c 3010, 3008
3010	♂ sk. ad.	<i>Aimophila mystacalis</i>	23.6 gm.	t. 10x6 mm.	light head & breast
3011	♂ sk. ad.	<i>Passerina versicolor</i>	15.9 gm.	t. 2 mm.	postimp. molt sl. fat.

August 17

3012	♂ sk. imm.	<i>Poliophtila albitoris</i>	6.5 gm.	t. 1 mm.	ovary 1
3013	♀ sk. ad.	<i>Aimophila mystacalis</i>	22.8 gm.	vult. toll.	brood patch.
3014	♂ sk. ad.	<i>Aimophila mystacalis</i>	22.1 gm.	t. 8x6 mm.	sl. fat. c 3014
3015	♀ sk. ad.	<i>Aimophila mystacalis</i>	22.4 gm.	ova. 1 mm.	no brood patch body molt. I 1-6 mm 7-12
skel. 3016	♂	<i>Centurus hypopolius</i>	56.3 gm.	t. 2 mm.	8-10 old.

6 1/2 mi. SW. Totolapan, 7000± ft., Oaxaca, Mexico

August 17

3017	♂ sk. ad.	<i>Aimophila mystacalis</i>	22.2 gm.	t. 9x6 mm.	c 3018
3018	♂ sk. imm.	<i>Aimophila mystacalis</i>	21.6 gm.	t. 1 mm.	body molt c 3020, 3021
3019	♂ sk. ad.	<i>Aimophila mystacalis</i>	25.9 gm.	t. 7x5 mm.	body molt
3020	♀ sk. imm.	<i>Aimophila mystacalis</i>	24.0 gm.	sk. st. 1-2	p.j. molt. refed. brood patch p.n. molt.
3021	♀ shed.	<i>Aimophila mystacalis</i>	23.8 gm.	ova - 3 mm.	t to breed again c 3013, 3024
3022	♂ sk. ad.	<i>Aimophila mystacalis</i>	23.0 gm.	t. 7x5 mm.	
3023	♂? sk. imm.	<i>Aimophila mystacalis</i>	19.3 gm.	body molt.	fledgling
3024	♀ sk. ad.	<i>Aimophila mystacalis</i>	23.9 gm.	ovary 1	brood patch.

LLWOLF
1969

Catalog

10 mi. SW. Matatlan, 5600 ± ft., Oaxaca, Mexico

August 15

sked 3025 ♀♂ sk.ad. *Aimophila mystacalis* — gm. t. enl.

4 mi. E. Tehuantepec, 100 ± ft., Oaxaca, Mexico

August 18

3026	♀	<i>Aimophila sumichrasti</i>	27.7 gm.	ovary sl. enl. edem. brood patch
3027	♀ sk.imm.	<i>Aimophila sumichrasti</i>	27.0 gm.	ovary & p.j. molt.
3028	♂ sk.ad.	<i>Aimophila sumichrasti</i>	27.1 gm.	t. 8x5 mm. sl. fed.
3029	♀ sk.ad.	<i>Aimophila sumichrasti</i>	28.3 gm.	ova-2 mm. edem. brood patch.
3030	♂	<i>Aimophila sumichrasti</i>	26.1 gm.	t. 8x6 mm. head blown apart.
3031	♂ sk.ad.	<i>Aimophila sumichrasti</i>	27.0 gm.	t. 8 mm. head molt.
3032	♂ sk.ad.	<i>Aimophila sumichrasti</i>	28.8 gm.	t. 7 mm.
3033	♂ sk.ad.	<i>Aimophila sumichrasti</i>	26.6 gm.	t. 9x7 mm.
3034	♀ sk.ad.	<i>Aimophila sumichrasti</i>	24.6 gm.	ova-2 mm. brood patch.
3035	♂ sk.imm.	<i>Aimophila sumichrasti</i>	16.1 gm.	1 edgling
3036	♂ sk.ad.	<i>Aimophila ruficauda</i>	41.6 gm.	t. 9x7 mm. ^{stom. 100% veg. - seeds.}
3037	0?	<i>Centurus auritrons</i>	80.1 gm.	juv.
3038	♂ sk.ad.	<i>Passerina leclancheri</i>	13.9 gm.	t. 5 mm.

August 19

3039	♂ sk.ad.	<i>Aimophila sumichrasti</i>	28.4 gm.	t. enl. ^{2 rupt. foll.} _{brood patch, ova-1, 2 mm.} ^{light body molt.} ₃₀₄₀
3040	♀ sk.ad.	<i>Aimophila sumichrasti</i>	30.0 gm.	
3041	♂ sk.ad.	<i>Aimophila sumichrasti</i>	28.3 gm.	t. 9x7 mm. ₃₀₄₂
3042	♂ sk.ad.	<i>Aimophila sumichrasti</i>	27.7 gm.	t. 8x6 mm.
3043	♀ sk.imm.	<i>Aimophila sumichrasti</i>	26.6 gm.	ovary & p.j. molt. ₃₀₄₄

LH Wolf
1969

Catalog

2 mi E. Tehuantepec, 100±ft., Oaxaca, Mexico

August 19

3044	♀ sk. imm.	<i>Aimophila</i> <i>sumichrasti</i>	26.2 gm.	ov. sl. enl.	brood patch -
3045	♂ sk. ad.	<i>Aimophila</i> <i>sumichrasti</i>	27.4 gm.	t. 9x6 mm.	
3046	♂ sk. ad.	<i>Aimophila</i> <i>sumichrasti</i>	25.3 gm.	t. 9x6 mm.	
3047	♂ sk. ad.	<i>Aimophila</i> <i>sumichrasti</i>	22.9 gm.	t. 7x5 mm.	
3048	♂ sk. imm.	<i>Aimophila</i> <i>sumichrasti</i>	29.3 gm.	t. 8x5 mm.	
3049	♂ sk. ad.	<i>Aimophila</i> <i>sumichrasti</i>	26.0 gm.	t. 7x5 mm.	

2½ mi. E. Tehuantepec, 100±ft., Oaxaca, Mexico

August 20

3050	♂ sk. ad.	<i>Mimus</i> <i>gillvus</i>	59.0 gm.	t. 7 mm.	post-imp. molt.
3051	♂ sk. ad.	<i>Aimophila</i> <i>sumichrasti</i>	29.0 gm.	t. 10x6 mm.	stom. - few seeds.
3052	♂	<i>Crotophaga</i> <i>sulcirostris</i>	49.7 gm.	t. 2 mm.	fledgling wing molt stom. - 100% insects.
3053	♂ sk. imm.	<i>Aimophila</i> <i>sumichrasti</i>	24.8 gm.	t. 1 mm.	p.-j. molt. sk. St. 1
3054	♂ sk. ad.	<i>Myiarchus</i> <i>nuttingi</i>	26.5 gm.	t. 6 mm.	Orange maxilla lining. p.-n. molt down brood patch
3055	♀ sk. imm.	<i>Aimophila</i> <i>ruficauda</i>	38.7 gm.	ov. - 7/4 mm.	brood patch over 8.5 mm. rupt. follic.
3056	♀	<i>Morococcyx</i> <i>erythropygius</i>	74.3 gm.	stom. - praying mantis, grasshopper	working sticks
3057	♂	<i>Morococcyx</i> <i>erythropygius</i>	63.8 gm.	t. 5x3 mm.	stom. - 100% insects. brood patch.
skel 3058	♀	<i>Morococcyx</i> <i>erythropygius</i>	67.0 gm.	rupt. follic.	brood patch
skel 3059	♀ sk. ad.	<i>Campylorhynchus</i> <i>rufinucha</i>	24.1 gm.	ovary granular	p.-n. molt
skel 3060	♂ sk. imm.	<i>Campylorhynchus</i> <i>rufinucha</i>	30.0 gm.	t. 3 mm.	p.-n. molt.

LLWOF
1964

Catalog

3 mi. E. Tehuantepec, 100± ft., Oaxaca, Mexico

August 21

3061	♂ sk. imm.	<i>Aimophila</i> <i>sumichrasti</i>	27.4 gm.	f. 8x5 mm. sk. st. 4 dragonflies in stomach.
3062	♂ sk. imm.	<i>Trogon</i> <i>chalybea</i>	40.0 gm.	f. 2 mm. sk. st. 2
3063	♂ sk. imm.	<i>Aimophila</i> <i>sumichrasti</i>	27.8 gm.	f. 8x6 mm. sl. fat.
3064	♀	<i>Pitangus</i> <i>sulphuratus</i>	72.7 gm.	ovary B light molt.
3065	♂ sk. imm.	<i>Mimus</i> <i>gillvus</i>	58.9 gm.	f. 2 mm. sk. st. 3-4 molt.
3066	♂ sk. ad.	<i>Aimophila</i> <i>ruficauda</i>	41.4 gm.	f. 11x7 mm.
3067	♂ sk. ad.	<i>Aimophila</i> <i>sumichrasti</i>	27.8 gm.	f. 7x5 mm.
3068	♂ sk. ad.	<i>Aimophila</i> <i>sumichrasti</i>	27.9 gm.	f. 8x6 mm.
3069	♀ sk. ad.	<i>Aimophila</i> <i>sumichrasti</i>	24.6 gm.	ova - 3, 2, 1 mm. brood patch. lt. f. - 10x7 mm
3070	♂ sk. ad.	<i>Aimophila</i> <i>sumichrasti</i>	26.8 gm.	left h. bare C 3069
skel 3071	♂ sk.	<i>Morococcyx</i> <i>erythropygius</i>	62.2 gm.	f. 5 mm. I - 1/2 yr. 2 - sh. 3 to old. body molt.
skel. 3072	♂ sk. ad.	<i>Mimus</i> <i>gillvus</i>	63.4 gm.	f. 2 mm. p. a. molt

2 1/2 mi. E. Tehuantepec, 100± ft., Oaxaca, Mexico

August 22

3073	♀ sk. imm.	<i>Aimophila</i> <i>sumichrasti</i>	29.3 gm.	ovid. cul. 2 rupt. foll. ova 1, 2 mm. brood patch.
3074	♂ sk. ad.	<i>Aimophila</i> <i>sumichrasti</i>	26.3 gm.	f. 8x5 mm.
3075	♂ sk. imm.	<i>Aimophila</i> <i>sumichrasti</i>	26.1 gm.	f. 6x4 mm. light body molt.
3076	♂ sk. ad.	<i>Aimophila</i> <i>sumichrasti</i>	30.0 gm.	f. 8x6 mm. light body molt. 1 rupt. foll. p. n. body molt.
* 3077	♀ sk. ad.	<i>Aimophila</i> <i>sumichrasti</i>	29.0 gm.	ova 8, 4, 2 mm. v. feather. brood patch. sl. fat. C 3077
3078	♂ sk. imm.	<i>Aimophila</i> <i>sumichrasti</i>	26.8 gm.	f. 7x5 mm. light body molt
3079	♀ sk. ad.	<i>Aimophila</i> <i>sumichrasti</i>	23.3 gm.	ova - 2 mm. - pre-breeding brood patch.
3080	♂ sk. imm.	<i>Aimophila</i> <i>sumichrasti</i>	19.9 gm.	fledgling with 3079.

LLWolt
1964

Catalog

2 1/2 mi. E. Tehuantepec, 100 ± ft., Oaxaca, Mexico

August 22

3081	♂ sk. imm.	<i>Aimophila ruficauda</i>	41.0 gm.	t. 10x6 mm.	̄ 3082
skel. 3082	♀	<i>Aimophila ruficauda</i>	36.5 gm.	ova - 8, 5 mm.	brood patch. ̄ 3084, 3085
3083	♂ sk. imm. b	<i>Aimophila ruficauda</i>	37.6 gm.	t. 9x7 mm.	
3084	♂ sk. imm. 4-5	<i>Aimophila ruficauda</i>	40.0 gm.	t. 8x8 mm.	̄ 3087, 3088
skel. 3086	♀ sk. ad.	<i>Aimophila ruficauda</i>	38.5 gm.	t. 10x6 mm.	̄ 30 brood patch.
skel. 3085	♀	<i>Aimophila ruficauda</i>	40.6 gm.	ova - 10, 8, 2 mm. 2 rupt. foll.	ova - 2, 1 mm.
3087	♀ sk. imm.	<i>Aimophila ruficauda</i>	35.9 gm.	brood patch	
skel. 3088	♀	<i>Aimophila ruficauda</i>	35.0 gm.	brood patch 3 rupt. foll.	egg in ovid.
3089	♂ sk. ad.	<i>Aimophila ruficauda</i>	44.7 gm.	t. 11x7 mm.	̄ 3090
3090	♂ sk. imm.	<i>Aimophila ruficauda</i>	36.7 gm.	t. 1 mm.	p-j. molt.

August 23

3091	♀ sk. imm.	<i>Aimophila sunichrasti</i>	26.0 gm.	1 rupt. foll. + 6 yshst? nest-building. ova - 3, 2, 1 mm.	̄ 4 brood patches
3092	♂ sk. imm.	<i>Aimophila ruficauda</i>	37.9 gm.	t. 10x7 mm.	̄ 3093, 3095 light body molt.
3093	♂ sk. imm.	<i>Aimophila ruficauda</i>	37.0 gm.	t. 9x6 mm.	light body molt brood patch body molt.
3094	♀ sk. ad.	<i>Aimophila ruficauda</i>	36.0 gm.	ova 5, 3, 2 mm.	
3095	♂ sk. imm.	<i>Aimophila ruficauda</i>	34.5 gm.	t. 1 mm.	p-j. molt.
3096	♀ sk. imm.	<i>Aimophila ruficauda</i>	31.5 gm.	ov. sl. ent.	̄ 3097.
3097	♂ sk. imm.	<i>Aimophila ruficauda</i>	34.0 gm.	t. 1 mm.	p-j. molt

16 1/2 mi. SE. Matatlan, 3000 ± ft., Oaxaca, Mexico

August 24

3098	♂ sk. imm.	<i>Aimophila mystacalis</i>	23.6 gm.	t. 8x5 mm.	(OO) light head + breast molt ̄ 3099, 3100 3 rupt. foll.
3099	♀ sk. ad.	<i>Aimophila mystacalis</i>	22.8 gm.	ova - 3, 2, 1 mm.	brood patch.
3100	♂ sk. ad.	<i>Aimophila mystacalis</i>	23.1 gm.	t. 9x5 mm.	stom. - 100% in rec. fs

LL Wolf
1964

Catalog

16 1/2 mi. SE. Matatlan, 3000 ± ft., Oaxaca, Mexico

August 24

3101	♂ sk. ad.	<i>Empidonax</i>	10.4 gm.	t. 2 mm.	sl. fat body molt.
3102	♂ sk. imm.	<i>Potioptila albicollis</i>	6.6 gm.	body molt.	1 - 12 mm 3 3/4 - sheath 5 - 10 - old.
3103	♀	<i>Centurus aurifrons</i>	74.4 gm.	juvenile.	body molt. light.

1 mi. SE. Tamazulapan, 5400 ± ft., Oaxaca, Mexico

August 25

3104	♂ sk. imm.	<i>Aimophila ruficeps</i>	21.6 gm.	t. 1 mm.	p. j. molt.
3105	♂ sk. imm.	<i>Aimophila ruficeps</i>	20.0 gm.	t. 1 mm.	p. j. molt.
3106	♀ sk. ad.	<i>Toxostoma ocellatum</i>	83.4 gm.	ovary gran.	p. n. molt.
3107	♀ sk. imm.	<i>Toxostoma ocellatum</i>	77.3 gm.	ovary 0	p. j. molt.
3108	♀	<i>Calothorax</i>	3.2 gm.	ov. sl. ent.	
3109	♀	<i>Calothorax</i>	2.8 gm.	ov. sl. ent.	sl. fat.

Cañon de Lobos, Pavi. E. Guerrero, 7800 ± ft., Morelos, Mexico

August 26

3110	♀ sk. imm.	<i>Aimophila humeralis</i>	27.6 gm.	ova - 2, 1 mm	3 rupt. foll. edem. brood patch sl. fat. light body molt
3111	♂ sk. ad.	<i>Aimophila humeralis</i>	24.1 gm.	t. 6 x 4 mm.	sl. fat.
3112	♂ sk. ad.	<i>Aimophila humeralis</i>	25.1 gm.	t. 7 x 4 mm.	sl. fat. light head molt.
3113	♂ sk. ad.	<i>Aimophila humeralis</i>	26.3 gm.	t. 7 x 5 mm.	sl. fat.
3114	♀ sk. ad.	<i>Aimophila ruficauda</i>	27.2 gm.	ova - 2, 1 mm.	ovid. sl. ent. st. 4 brood patch sl. - mod fat
3115	♂ sk. ad.	<i>Vireo gilvus</i>	11.2 gm.	t. 2 mm.	st. 4 brood patch
skel. 3116	♂	<i>Chlorostilbon canivetii</i>	2.0 gm.	t. 2 mm.	



7 mi. E. Taxpan, 6600 ± ft., Michoacan, Mexico km. 181.5

August 27

	3117	♂ sk. ad.	<i>Aimophila</i> <i>botteri</i>	22.4 gm.	t. 7x5 mm. ^{sl. fat.} light body molt
	3118	♂ sk. ad.	<i>Aimophila</i> <i>botteri</i>	23.5 gm.	t. 12x6 mm. cl. prot. cal.
	3119	♀ sk. imm.	<i>Aimophila</i> <i>botteri</i>	20.0 gm.	ovary 8 p.f. molt edem. brood patch
skel.	3120	♀ sk. ad.	<i>Aimophila</i> <i>botteri</i>		ova - 1 mm.ovid. sl. ent.

44 mi. E. Morelia, 8500 ± ft., Michoacan, Mexico

August 27

to Mexico	3121	♂	<i>Dendrocopos</i> <i>villosus</i>	? gm.	t. "
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San Blas, 2 mi. SE. sea level, Nayarit, Mexico

August 29

skel.	3122		<i>Pelecanus</i> <i>occidentalis</i>		found dead on beach
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16 mi. N. Navajoa, 200 ± ft., Sonora, Mexico

August 31

	3123	♂ sk. imm.	<i>Aimophila</i> <i>carpalis</i>	13.4 gm.	t. < 1 mm. fledgling ̄ 3123 3125
	3124	♂ sk. ad.	<i>Aimophila</i> <i>carpalis</i>	15.0 gm.	t. 5 mm. sl. fat
	3125	♀ sk. ad.	<i>Aimophila</i> <i>carpalis</i>	15.6 gm.	ova - 1 mm. brood patch
	3126	♂? sk. imm.	<i>Aimophila</i> <i>carpalis</i>	12.3 gm.	sl. fat. p.f. molt. ̄ 3126 3128
	3127	♂ sk. ad.	<i>Aimophila</i> <i>carpalis</i>	14.3 gm.	t. 6x4 mm. sl. fat
	3128	♀ sk. ad.	<i>Aimophila</i> <i>carpalis</i>	14.6 gm.	ovary 8 light ^{sl. fat.} molt edem. brood patch
	3129	♀ sk. ad.	<i>Aimophila</i> <i>carpalis</i>	16.1 gm.	ova - 1 mm. ̄ 3130, 3131
	3130	♂ sk. imm.	<i>Aimophila</i> <i>carpalis</i>	15.7 gm.	t. 5 mm. p.f. molt
	3131	♀ sk. ad.	<i>Aimophila</i> <i>carpalis</i>	14.3 gm.	ov. sl. ent. brood patch

LLWOF
1964

Catalog

16 mi. W. Navajo, 200±ft., Sonora, Mexico

August 31

					stub-tailed young body molt.
3132	♂ sk. imm.	<i>Amophila carpalis</i>	13.8 gm.	t. 1 mm.	
3133	♂ sk. ad.	<i>Amophila carpalis</i>	17.8 gm.	t. 5 mm.	
3134	♂ sk. ad.	<i>Amophila carpalis</i>	16.1 gm.	t. 5 mm.	
3135	♀ sk. ad.	<i>Amophila carpalis</i>	17.8 gm.	ov. sl. cul.	Good patch sl. fat.
3136	♀ sk. ad.	<i>Amophila carpalis</i>	12.7 gm.	ov. sl. cul.	Good patch sl. fat.
skel. 3137	♂ sk. ad.	<i>Amophila carpalis</i>	16.5 gm.	t. 6x4 mm.	sl. fat.
3138	♂ sk. ad.	<i>Amophila carpalis</i>	15.6 gm.	t. cul.	sl. fat.
skel. 3139	♂ sk. ad.	<i>Amophila carpalis</i>	16.1 gm.	t. 6x4 mm.	sl. fat.
3140		<i>Amophila carpalis</i>			

20 mi. E. Mazatlan, 1600 ±ft., Sonora, Mexico km. 114

Sept. 1

3140	♂ sk. imm.	<i>Amophila quinquestrata</i>	18.5 gm.	t. 1 mm.	cl. prot. cul. ³¹⁴¹ p. molt.
3141	♂ sk. ad.	"	19.0 gm.	f. 9x6 mm.	molt no molt.
3142	♂ sk. ad.	"	20.0 gm.	t. 10x6 mm.	cl. prot. cul. ³¹⁴³ no molt carrying food.
3143	♀ sk. ad.	"	17.9 gm.	ovary	brood patch no molt of ³¹⁴⁴ feathers sl. fat.
3144	♂ sk. ad.	"	20.9 gm.	f. 9x6 mm.	body molt.
3145	♂ sk. ad.	"	21.7 gm.	t. 8x5 mm.	body molt no molt.
3146	♀ sk. ad.	"	19.5 gm.	ovary	brood patch
3147	♂ sk. ad.	"	19.6 gm.	t. 8 mm.	cl. prot. cul.
3148	♂ sk. ad.	"	18.8 gm.	f. 9x6 mm.	cl. prot. sl. cul.
3149	♂ sk. ad.	"	19.3 gm.	t. 8x5 mm.	
3150	♂ sk. ad.	"	20.2 gm.	t. 5x3 mm.	

Need

Skeletons

ruficeps - ♀

notosticta ♂, ♀

mystacalis - ♂, ♀

cassini - ♀

botteri - ♂, ♀

aestivalis - ♂, ♀

rufescens - ♀

ruficanda - ♀

humeralis - ♀

5-stripe - ♂, ♀.

Welf, L.L.

1963-1964

Journal

Calif, Ariz.,
New Mex., Mexico
Texas

LHW:f
1963

Journal

June 22 - Left Berkeley 830 A.M. (38110.7). Drove via 50 to U.S. 99. Down 99 to Bakersfield. Took 466 to Kramer + then turned south via 395 to San Bernardino. took 60,70 east thru Blythe, Calif. toward Phoenix - stopped at entrance to ranch along road about 3 miles east of Wickenburg, Ariz.

At 1957 (8.9 miles west of Blythe) first noted bats flying across road. They were small bats, but don't know species. Area was dry, rocky desert. At 20:02 (3.2 miles west Blythe) I saw first Chordeiles dentigularis for the evening. A few noted in desert areas but most were over agricultural land + congregated along Colorado River just ~~west~~ east of Blythe.

Very few animals seen on road after dark - coyote, Dipodomys (?), rabbit.

Stopped at 2340 P.D.T.

June 23 - 3 miles east Wickenburg, Arizona to Tucson, Ariz.
mileage 58880.8

up at 0430 P.D.T. birded in mesquite, cottonwood area. Lucy Warbler common - some in pairs others seem to be in flocks. Also small ~~pop~~ of Vermilion Flycatcher. Saw 1 Sharp-shinned Hawk sailing just above tops of trees. ♀ House Finch giving soliciting display.

On road at 600 P.D.T.

Places to go

San Angelo, Tom Green Co., Texas - Cassini

Texas Cameron Co.

10.1 + 2.3 miles W. of Fort Isabel

Items to Record -

1. Extent of cover - transect
+ type
2. Verdance of vegetation.
3. Possible water sources.
4. Evidence of breeding by other species.
5. Insect outbreaks.
6. Spacing of pairs.
7. Song frequency
8. Activity rhythms during day.
do 1 hour watches - ^{AM} 9-10 ^{PM} 1-~~2~~ ^{PM} 4-5
^{AM} 6-7
- 9.

LLWolf
1963

Journal

June 23

Had breakfast just east of Phoenix. Went thru Apache Junction + took 80-89 south to Tucson. Stopped at Tom Mix Wash + looked around for 15± min. Continued on to several miles north of Oracle Junction. Walked for short distance thru sparse grassland - mostly larrea. No A. carpalis. Picked up young Curve-billed Thrasher dead on road about 10 miles north of Tucson. Arrived Tucson at 1100. From Apache Junction to just north of Grace Junction vegetation is mostly mesquite, cholla, palo verde desert. grass more prominent near Oracle Junction. Skirt west side of mts just north of Tucson.

Spent rest of day in Tucson at 1634 Avenida de Sol at home of relatives of John P. Hubbard. John is going to accompany me on rest of trip.

About 430 AM we went north on Wilcox Road + continued out Tanque Verde Road to Mt. Lemmon Rd. Drove up to Upper Molino Basin + hiked for 1± hours. Area is rocky, grassy hillside with oaks along stream bed. Aimophila ruficeps seemed to be in pairs. I heard several birds singing. Song very similar to the common Bulbul song. No young were observed. Pairs were spaced out on the hillside + seemed to be in the most rocky areas. (see species list).

On up road to General Hitchcock picnic area

ref. of
p. 100

24 WOLF
1963

3

Journal

June 23 - gradually conifers appear. 1st is Arizona Cypress Then Chihuahuan Pine + Alligator Juniper. Species of oak change also.

At dusk 3⁺ Whip-poor-wills begin calling from rocky slopes above campground. John called in one Whiskered Owl.

Drove back to Tucson Arrived 9:30 P.M.

June 24 - Up at 430 AM. Picked up Pat Gould + drove out Benson Hwy to east to Wilcox Rd. Go 0.6 mi. N. of Hwy + park beside road. This is area of mesquite, cholla, hackberry, palo verde with grass clumps scattered throughout much of the area. Most shrubs are leafed out while they were bare in January + February. Hackberry seems to be losing its leaves. Cattle are grazing in here (on east side of road) they were not in Jan. - Feb. Watched thru area until 630 - birds are paired + breeding activity goes from none (A. carolinensis) to young as large as adults (M. cinerea). Cambel Quail have half grown young following the adults around.

From 0630 to 0800 tried to net + color-band Rufous-wings with no success. Were able to drive a pair to the net area, but caught neither.

LLWoff
1965

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Journal

June 24 - Tucson area

John tried to get some recordings of Rufous-wings + nest with no success. Birds not singing continuously enough to locate + approach.

Left area at 0830. Returned to Tucson + drove to Univ. of Ariz. campus. Left car to be lubricated. Prepared specimen of A. carpalis collected by P.T. Gould. Dr. J.T. Marshall is in Mexico City conferring with A.R. Phillips on Arizona check-list. Unable to find locality for Aimophila quinquestrata just south of border.

Picked up car + returned to house. John trying to locate trunk he had shipped out here two weeks ago.

June 25 Tucson, Pima Co., Arizona.

arrived at Wilcox Rd. locality at 0600. weather clear bright + warm. Slight breeze in early morning to little or none by 0830. slight haze on mts.

Spent most of morning until 1000 observing various Aimophila carpalis. They seem restricted to areas where cholla is sparse or absent. The dominant shrubs are hackberry + mesquite + the ground cover is absent or grass or Haropappus.

Spent half an hour watching Curve-billed Thrasher come back to nest. Had a Black-tailed Gnatcatcher try to land on my head or shoulder

carpalis
habitat

LCWBAF
1963

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Journal

June 25 - while I was sitting down watching the thrasher. Saw pair of Belted Flickers - at least one bird foraging on ground like Yellow-shafts.

Found several empty Verdin nests + a grass ball lacks when nest. Verdin watched feeding full grown young out of nest.

John spent much of morning trying to record Aimophila caryalis vocalizations. He had some luck, but was not able to record all song types we have heard. Also much surrounding noise + wind produced some noise on tape.

John collected six birds + we drove back to Univ. of Arizona to prepare the specimens. Had lunch with P.J. Gould + two visitors from Los Angeles - one a Dr. ? Green. They are touring high spots of Arizona looking for exciting birds.

At 1530 John + I went 15 mi. NE of Tucson up the Mt. Lemmon road to Molino Basin. John collected while I tried, unsuccessfully, to record Aimophila rubriceps songs. Area here is oak along stream + scattered up rocky, grassy slopes. John collected 2 Costa Hummingbirds from number in oaks along stream bed. Both were immature ♂♂. Also saw a pair of Gray Vireos in oaks. ♂ was singing - like Red-eyed Vireo - + following ♀. ♂ collected. Also a ♀ Rufous-crowned Sparrow + a 1st yr. ♂ Scott's Oriole.

LLWof
1963

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Journal

June 25 - Left area at 1710. Back to Tucson. Had dinner prepared birds from Molino Basin + wrote notes.

June 26 - Tucson, Pima Co., Arizona to east of Camel, Arizona arrived at Wilcox Rd. locality at 0545. Set up the net + spent rest of morning until 0915 trying to catch + color-band Aimophila carpalis. Managed to catch 2 + had one other bounce off net. Also caught a very ^{young} Lucy Warbler + Curve-billed Thrasher. Returned to Tucson, bought groceries preparatory to leaving later this afternoon for SE. part of Arizona + adjacent New Mexico. Sharp-shinned Hawk - wing Sparrows

The only other species, that regularly forage on the ground in this area are Brown Towhees, Gilded Flicker, ^{Cactus Wren} Curve-billed Thrasher + probably the Cardinals. I would guess that the only species using same food source would be the Brown Towhee.

Mesquite is favorite foraging spot for Lucy Warbler, Verdin, Black-tailed Gnatcatcher, Hooded Oriole (down low).

June 26

39311.2 mileage in Tucson at 4:20 pm at time of departure for se. Ariz.

LL Wolff

1963

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Journal

June 26 - Took R. 80 to R. 83 turnoff. Went south thru Sonora & went straight rather than turning on R. 92. Follow signs to Camelo. (Also Parker Canyon Lake). Go thru Camelo & follow road to Ft. Huachuca. Camped just across line in Cochise Co.

Passed thru yucca grassland on R. 83. South of Sonora area is oak grassland (overgrazed), mesquite, & occasionally pinon-juniper. Area where camped is mesquite, few Emory oak, Sacaton grass.

June 27 1 mi. w. Ft. Huachuca, Cochise Co., Arizona.

In field at 0545. Went back to spot where shot yg. Leek Sparrow at dusk last night. Area is grazed & fenced grassland with weeds & mesquite. Found 2 singing ♂ Boateri Sparrows. Spent until 0745 observing & recording songs of these birds. Then prepared specimens, packed up & headed for Chiricahua Mts. Drove thru Ft. Huachuca & had lunch in Bisbee. Four miles out of Bisbee we continued due east to R. 666. Took this to 181 which we followed to base of Mts. Here took gravel road climbing up to Rustler Park in the pines. At Rustler Park we found logging operations with camping prohibited. John collected here for about 1 hour, I just bird-watched after discovering my gun was broken. Took birds with us & headed for Cave Creek Canyon & south fork Canyon area. Stopped at SW. Research Sta. (AMNH)

Journal

June 27 9:45 am - 39394.9 mileage at time of leaving camp in n. foothills of Huachuca. (39395.8 at west gate of Ft. Huachuca Military Post).
~~Up + into field at 0545~~

June 27 talked with Mr. Koch + found E.T. Hooper from Museum of Zoology Ann Arbor, Michigan. Talked to them for short time + watched hummingbirds coming to feeder. Drove on to campsite. Had supper, helped John put up his birds then wrote notes.

While having supper in this canyon bottom - right near streambed - we heard Myiarchus intercalifer + Amphispiza vulgaris calling. Also Buddled Titmouse, Arizona Jay, + Painted Redstart

LLWOLF

1963

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Journal

June 28 up at 0545 in Cave Creek Recreation area. camped on south fork trail. had snack for breakfast + then into field. John + I walked up canyon on opposite sides of the stream bed. Vegetation along stream is Sycamore, oaks, + conifers. Above stream on sides of canyon is xeric vegetation, grasses, Yucca, + very rocky. Heard Rufous-crowned Sparrows singing up there. At flowering Yucca watched at least two species + several individuals feeding. Most seemed to fly back to riparian situation.

Along stream bed encountered calling ♂ Trogon elegans. Watched him twice fly up to over head branch (4 feet) + hover while picking something from the ^{foliage} ~~branch~~. Continued on up trail. Hunted within 1/2 mile of camp along trail returned at 1000. Prepared my seven specimens.

Had lunch + spent several hours during heat of the day talking to a Mr. Lockhart, a local resident, former jazz musician, + self-styled writer + historian. He apparently likes endeavors in which one can become seemingly proficient by memorizing large amounts of factual material. At present he claims to be researching for a book dealing with the history of Tombstone, Arizona.

Took malaria pill today.

LLWolfs
1963

Journal

June 29 from Cave Creek Canyon to Portal is 5 miles by road. up at 0500. broke camp + had breakfast. left ~~south~~ area at 0545. Mileage 39548.6.

Rustler Park to Portal is 16 miles by road. Toward north east of Portal on R. 80. Drove to sign pointing to left saying "Cienega Lahu" Can see tall trees in distance. Drove back in on this road to fork. Take left fork which ends 150 ft. further at New Mexico Game + Fish Area. Walk around this small pond + look for Mexican Duck, Yellowthroats, etc. Some nice tule areas. Pond is covered in spots with green algae. Area between R. 80 + lahu is mesquite - creosote, sphaeralcea desert. Hunted this area for 2+ hours. Lucy Warbler is very common. Young are essentially independent, but birds are traveling in groups of 3-8, probably family groups. Cactus Wrens are abundant + I found 1 nest containing 5 young. Young had feathers showing on most backs + most were just emerging from feathers. Young Bell Vireos were begging, but appeared independent. Shot juvenile Crisal Thrasher which apparently was alone.

Flushed a Mourning Dove from nest Dec. As 2nd adult flew out it "fell" to ground + flopped along in injury signaling display. 2 large young were sitting on nest and flew off as I approached.

LLWOF

1963

Journal

(2)
June 29 - John watched a Tranier Falcon being harassed by a pair of Sparrow Hawks.

Prepared specimens + then drove 15 mi. south to Rodeo + had lunch. Continued on to Douglass, Ariz. Coming in from north take 15th St. to left to go to Guadalupe Canyon. On gravel road take left fork then right fork. New Mexico state line is marked by fence + cattle guard about $1\frac{1}{2}$ miles from end of road. At end of road is Johnson ranch. They were very friendly + readily gave permission to camp on their land. We camped under large Sycamores beside stream bed (dry) just west of last cattle guard. Decided to move camp $\frac{1}{2}$ mi. to SW. Had supper + set up camp. At dusk hunted for owls. Found ² adult Elf Owls feeding a $\frac{3}{4}$ grown young in a 15 foot! John collected one adult - stomach contained remains of grasshoppers. Later I collected another adult feeding grown young still in nest. Also found several Screech Owls in canyon. Collected one.

June 30 Guadalupe Canyon

Up at 0515. Had breakfast + then into field. I walked up road toward Johnson Ranch. NE. John went other direction.

UASO/K

1963

12

Journal

June 30 Encountered pairs of Cassin Kingbirds about every 100-200 yards - generally in sycamores + on dead, exposed perches. Ash-throated Flycatchers less common + tend to be along edge of riparian + mesquite hillside. Olivaceous Flycatchers generally in pairs - once saw 3 together. Occur in sycamores + other riparian vegetation. Do occur in edge of mesquite. Hooded Orioles spaced in pairs along canyon.

This canyon area has sycamore, juniper, oaks along dry stream bed. On hills above stream is mesquite cactus, Yuccas, agave, grasses. Cañon Wrens + Rufous-crowned Sparrows are calling from hillsides. Rufous-crowns do come down to canyon floor to forage.

Hummingbirds are common, but difficult to identify. They are generally in + around taller trees along stream bed. ~~Let~~

Returned to camp at 0900 + prepared specimens until 1230. Then wrote notes.

By 0830 the birds are very quiet + observing or collecting becomes a matter of chance.

At 1330 packed up + drove back to fork in road with sign pointing to Cloverdale. Take this road + cross pass; continue 3-5 miles + just before stream crosses road can turn off to camping area. Clanton Canyon. Arrived at 1500 after losing tailpipe along road.

L. Wolf

1963.

Journal

June 30 - This new area is a pine-oak woodland - one of J.T. Marshall's localities for his Birds of Pine-Oak woodland.

Had supper & set up camp. At dusk went out for night birds & Worm-eaters are common on slopes above the camp. At least one Screech Owl was calling & 2 Elf Owls. Heard sound - rather like jay squall - which right before in Guadalupe Canyon we traced to a young Elf Owl in the nest.

July 1

Clanton Canyon, New Mexico
up at 0510. Had good breakfast for a change & in field by 0600. Heard Rufous-crowned Sparrows singing & collected a ♂. Found pair of Zone-tailed Hawks calling excitedly just east of camp. John later shot one of these birds. They acted as if nest or young in area. Working up slope of grass, rocks, Yucca, agave, oaks, pine, juniper, & manzanita found families (3-6 birds) of Bewick Wren scattered over terrain. Estimate of 50-100 yards average between family bands. Always in areas where some oaks, but they may be scattered.

Flock of Bush-tits in oak, juniper woods along stream bed. Estimate 70+ birds. Shot three - two too badly to save. Two had brown eyes - both ♂♂. & one had light eye - adult female. Scattered pairs of Bridled Titmouse.

LEWIS
1963

14

Journal

July 1 - Heard tapping of woodpecker on ~~dead~~ tree. When located was an adult Acorn Woodpecker with head sticking out of hole in dead pine. Mouth open & panting as I approached. Stayed in nest until I was 15 feet away. Contents of nest cubrown.

Saw Ash-Throated Flycatcher flying in direct line down canyon with food in bill. Heard young calling. Found, at least 2, well-feathered young in hole in oak. Hole was 30+ inches above ground & ~ 3" in diameter. Sides of nest hole inside were plastered with fecal material.

Returned to car at 0945. Put specimens until 1100. John still has several to do so I pack car & write notes. Plan to go to Gray Ranch today to see if there are any accessible canyons in Animas Mts. Then to Animas, N.M. for gas & water. Continued on to Lordsburg after John decided not to try to go around to east sides of Animas Mts. Had tailpipe put back on - 8.81 - then had supper. Drove out 70-90 from Lordsburg. Took road to Duran & then turn off to Red Rock. After reaching Red Rock continue on gravel road. Take left fork past post office - forked marked with Baptist Church sign - & continue to bridge. Just across bridge are two "roads" to left. Take either for good camping spots.

LLWp/f
1963

Journal

July 2 Red Rock, Grant Co., to Silver City, Grant Co., New Mexico
Up at 0515 after night of high winds that tried their best to blow tent over. Had breakfast + then into field. I walked thru arrowweed, cottonwoods (Populus tremula), + a species of Salix along banks of Gila River. Common birds are: Bewick Wren, Cardinal, Abert Towhee, House Finch, Lesser Goldfinch. Most are ubiquitous throughout habitat. Towhees have young on the wing + apparently independent, altho still in family groups. Two ♀♀ collected both had recently ruptured follicles - second nestings. A cowbird ♀ had an egg in the oviduct + at least 2 ruptured follicles. Not possible to determine if bred earlier or not. Collected this ♀ from a group of 4 - 2 ♂♂ + 2 ♀♀. Seemed to be foraging (or drinking) at edge of river as two pairs.

Robins were singing in riparian vegetation. Cardinals, Yellow-billed Cuckoo both singing. Seems to be late breeding here in comparison to some areas we have visited.

Skinned + skeletonized specimens. Had lunch + packed car. Headed for Silver City. Arrived + drove past New Mexico Western University. Drove up to Dale Zimmerman's house where the Leonard Dahlyns are staying while Dale is in Africa. Plan to stay here a day or two.

Journal

July 3

Signal Mountain, Grant Co., New Mexico.

Drove up to Signal Mt. from Silver City about 0500. Had flat tire on way. Arrived in conifer forest at about 0600. Birded for a half hour. ~~then~~ In response to Pygmy Owl imitation following birds came in: Dowry Woodpecker, Western Tanager, Hermit Thrush, Pygmy Nuthatch, Wh-br. Nuthatch, Audubon Warbler, Robin, Hairy Woodpecker.

Further up road came to area of Douglas firs + aspen with locust, Acer + understory shrubs. This is good area for Western Flycatcher + Red-faced Warblers. John collected two Cardellina + a ♂ Dryocopus bolmeri. Also saw a ♀ O. t. feeding 3 recently fledged young. Apparently a southern breeding record for the species.

Junco caniceps had full-grown young moving in family groups + I found a nest in road-cut containing 2 1/2 grown young.

Also saw young Rufous-sided Towhee which was in midst of postjuvinal molt.

See notes under Parus gambeli + Cardellina for postnuptial molt records.

Left mountain about ~~0800~~ 0830. Back to Silver City at 0925. Prepared specimens. Spent rest of day shopping, getting equipment repaired etc.

LLWOLF

1963

Journal

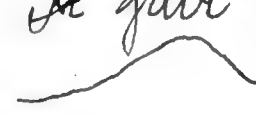
July 4

Silver City Grant Co., New Mexico

up at 0500 - had breakfast + then into field. Drove past Bear Mt. Ranch to area of oak, juniper, pines + Ceanothus. Ground was bare 50%+. Rufous-crowned Sparrows, Black-chinned Sparrows + Rufous-sided Towhees were common + singing. Virginia Warblers appeared in pairs while Bush-tits were in flocks.

These species were all in the mixed Ceanothus, juniper, oak hillsides. Solitary Vireos were singing occasionally from the conifer groves.

I tried to record Rufous-crowns about 0800. Except for occasional bouts of 2 or 3 songs they were completely quiet.

After John returned to car with his birds we drove 2-3 miles farther + found 3 or 4 singing Rufous-crowns. I recorded two of them - one from each side of road. Meanwhile John found a Bush-tit flock + tried to secure another black-capped form like one he had taken earlier in the morning. This area was more open grassy hillside with scattered oaks + junipers. One mile further along the road we stopped in an overgrazed area with 35-50% cover of bear grass + junipers + oaks. Found one male singing Cassin's Sparrow. It gave several flight songs - fly up in arc  song started just

refuge habitat.

refuge habitat.

refuge habitat.

LL Wolf

1963

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Journal

July 4 before top of arc + ended before bird landed. Generally flights averaged 50+ feet. After recording some songs, John tried to collect the bird + did not succeed. Unfortunately as he thinks this is the northernmost record for the state (non-breeder).

~~Returned~~ Returned to 1011 Florence St. about 1:00. Had lunch + prepared specimens. Picked up shotgun from repair shop - do not fire any more Magnum shells.

July 5 - Silver City + in NW. Cliff, Grant Co., New Mexico.

Up at 0500. After coffee drove up to Little Walnut Creek Campground N of Silver City. In parking lot area were 2-3 singing ♂ Gray Flycatchers. John found a pair of territorial Indigo Buntings in nearby willows. I walked to SE to another ranch road + followed this uphill. Area is open pine oak woodland. Mexican Jays were present in several flocks of 8+ birds. Chipping Sparrows were feeding full grown young. Full-grown young Black-throated Gray Warblers also being fed by adults. Found brown-eyed Bush-tit carrying food + remaining in group of 4. Could not locate nest or young. Reynolds-crowned Sparrows were spaced along road + down hillside along upper

nesting habitat

LL Wolf
1963

Journal

July 5 stretches of the road. Only birds seen(?) were together.

Returned to 1011 Fluma at 0930. Prepared specimens & prepared to leave for Gila River area near Cliff, Grant Co.. Took road to right in Cliff. Followed left fork & turn sharp left across cattle guard on to ranch road. This leads to canyons dropping down to Rain Creek. John walked thru a canyon - riparian to Douglas Fir as moved up canyon. I spent my time (1330-1630) on scrub oak, Ceanothus, juniper, rocky hillside. Rufous-crowned Sparrows, Black-chinned Sparrows, Mockingbirds, Cassin Kingbirds, & House Finches common on the hillside.

Prepared specimens while waited for John to return. Drove to Gila River N. of Cliff. Camp here tonight & collect in morning before return to Silver City.

Afternoon at Rain Creek was overcast & rained for 1 hour +. Did not rain exceptionally hard, but seemed to be upon the canyons. John reported the stream in the canyon dried up except for few water holes.

~~From~~

July 6 8 mi. N Cliff to Silver City, Grant Co., New Mexico
Up at 0515. Into field after short breakfast. John worked along Gila River in riparian vegetation while I walked

LL Wolf

1963

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Journal

July 6 up Mogallon creek & then uphill to mesquite - overgrazed area. I spent until 0900 trying to collect Desert Sparrows. Managed to obtain 2 singing ♂♂ & a full-grown young. Both ♂♂ were beginning the postnuptial molt - see species accounts. Common birds in the mesquite were Bullock Orioles, Mockingbirds, & a pair of Blue Grosbeaks.

John found a ♂ (breeding condition) Myiarchus tyrannulus. Probably as far north as the species gets. Area along river has cottonwoods & arrowweed.

Prepared specimens & then drove thruout area to see other spots. Walked along Gila River near Gila to a slough formed by a beaver dam. Along river were 7-10 Killdeer & 3 Spotted Sandpipers. Heard an Indigo Bunting in cottonwoods. John collected a pair of Red-winged Blackbirds which were feeding young.

Back to Silver City at 1300.

July 7 today took sight-seeing trip with Leonard & Jane Gahly & John. Drove south of Silver City on gravel road out of White Signal leading to Sefer. Found abandoned mine tunnel & explored. Pair of Peromyscus living 50 feet back & a dead Citellus.

LHWOLF

1963

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Journal

July 7 - 14 mi. N of Sagar we found colony of singing ♂ Cassin Sparrows. (see species accounts). This

country thru here was good grassland but now is overgrazed with mesquite coming in.

Drove to Hatchita & had lunch on school steps.

Then gravel road to Columbus. Saw Scaled Quail, Horned Lark, Desert Sparrows, Common Nighthawks (4), + Golden Eagle along road.

Drove back to Silver City via Deming. Just south of Deming hit dust storm + at Deming rain into rain storm that occurred at least Silver City. Raining season has started here. Back in Silver City at 1730. Prepared specimens.

July 8 Silver City, New Mexico to Coahom Mts. near Safford, Arizona.

Packed car preparatory to leaving Silver City. Left at 1000 after buying few groceries, gas, + screening. Drove south west on 180 to just north of Lordsburg. Listened 5 miles north of Lordsburg for Cassin Sparrows - no luck. Took U.S. 70 to R. 82. 8 mi. NW of Lordsburg on 70 found group of territorial singing ♂ Cassin Sparrows. Drove 82 thru Virden where saw 1 ♂ Boat-tailed Grackle on west edge of town. More grackles were heard behind a cape on west edge of Duncan, Arizona.

Continued on 70 to Safford + turned south on 666. 10 mi. south we turned to west on 366. Road is gravel

Cassin
habitat

UWOLF
1963

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Journal

July 8

most of distance after leaving valley. About 24 miles along road - after passing thru Lady Bug Saddle - there is a road going to Shannon campground + another to (Heliograph) lookout. Very good view from fire tower. Observer here says he can see Douglass, Arizona on clear days + saw fire in Santa Catalina - 105 miles away. Graham Mts. rise up abruptly and have broad valleys on either east + west sides.

Area where camping tonight is mostly fir forest with some spruce (Picea pungens), Abies glabrum, Populus tremuloides. They appear to be logging out some of bigger trees. Open areas have nice grass layers. Campground has running water even now ~~at~~ end of dry season. This is first park we have hit to have running water.

July 9

Graham Mts. to Tucson, Arizona.

Up at 0530. Collected around Shannon Forest Camp until 0830. Troglodytes are common in groups of 5± especially in brush piles left by recent logging operations. I guess these groups are family groups. Spacing was 25-50 yards in areas of heavy logging. Several pairs of Hairy Woodpeckers (or pair + young) in Douglas Firs.

Mexican Juncos had almost fully grown young foraging with adults.

LHW:lf
1963

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Journal

July 9 After collecting here drove to Lady Bug Saddle (elevation 8300 feet). With Pygmy Owl call I attracted Mt. Chickadees, Virginia Warbler, Red-faced Warbler, Mexican Juncos, Western Tanagers, + Audubon Warbler. Collected Virginia + Red faced Warbler.

Left here at 0915. Drove to 666 + then south to highway to Tucson. Arrived Tucson at 1210. Had lunch + prepared specimens. Both Pat Gould + J.T. Marshall were gone.

Stay tonight at 1634 Avenida del Sol.

July 10 Tucson, Arizona.

to Wilnot Rd. locality at 0600. Area still has not received any rain. Hackberry is showing new leaves but old ones still hang on. Most of grass has been grazed out except around other plants.

Spent until 0800 observing Rufous-winged Sparrow. Heard 15+ singing ♂♂ + saw several pairs foraging together. Heard no Cassin Sparrows singing. Most young are full grown + independent, Cactus Wrens in group of 5. Found no evidence of breeding except old nests.

Spent rest of day preparing to leave for Mexico in morning.

Was partly cloudy all day + rained in Tucson in the afternoon.

LWOLF

1963

Journal

July 11 Tucson, Arizona to 18 mi. N. El Oasis, Sonora, Mexico
 mileage 40487.8 (0730) left Tucson at 0745. Drove
 straight to Nogales. Arrived about 9 AM. Bought gas +
 prepared to cross border. First stop right at border is to obtain
 tourist cards only. Drive 4 miles south of town to Aduanas
 for baggage inspection + car permit. For \$1.00 each the
 boss + flunky were going to let us go thru unchecked until
 we mentioned having shotguns. They sent us back down
 the road about 1/2 mile to La Loma's turnoff. Up road to
 top of hill to army barracks. See general. Find we
 need 4 photographs each so back to Nogales. While
 there check at consulate in Arizona where lady tells
 us we need letters from Dept. of War to bring in guns.
 After getting photos back to see general who fixes us
 up with permits for nothing. - usually is \$6 in consulate.
 Finished at border by 1230. Start down highway &
 stop in oak parkland for lunch (Quercus emoryi).
 Soon vegetation becomes mesquite woodland to
 open mesquite. There are some areas of irrigation
 where crops are grown. Most of mesquite areas are
 heavily overgrazed + placed we stopped 31 miles N.
 of Magdalena I found 6-7 dead cows.

From mi. N El Oasis to camping site we
 found Amphispiza bilineata to be common roadside
 birds. Can hear songs all along road. Stopped
 two more places & made camp at 2nd. Is short

LL451F
1963

Journal

July 11 road to east of main highway. (~~near~~). Rufous-wings common here + ♂♂ singing. ♀♀ collected show no sign of breeding, but one had a slightly enlarged ovary. Birds occur in pairs + are spaced out on territories.

carpalis
in pairs

Very interesting to note carpalis occurring where the only vegetation is shrubs - there is no herbaceous layer at all - in marked contrast to Wilcox Rd locality in Tucson. Birds seem to be as dense or denser here than at Tucson.

To bed at 0840.

July 12 18 mi. N of El Oasis to 20 mi. E Mazatlan, Sonora
40676.0 El Oasis - 40694.

Up at 0500. Had breakfast + into field. I spent first two hours recording Rufous-wing Sparrow songs. Recorded at least four birds + a duetting pair. Then out to observe + collect. Discovered that when approached a singing ♂ will usually fly to join its mate. Was able to collect two pair in this way. One nest-building + other probably w/ completed nest, but I didn't find it.

carpalis
♂ + ♀

Hummingbirds (broad-billed) common about flowers of Acotillo. Found pair of Black-tailed Gnatcatchers feeding a partly grown Cowbird.

Pyrrhuloxia common in pairs. Watched Cactus Wren carry grass stem to partly completed nest.

LLWOLF
1963

Journal

July 12

Prepared specimens + broke camp. Drove to El Oasis + turned east for 5 miles to Carso. Drove $1\frac{1}{2}$ miles more to east to look for palm forest reported by J.T. Marshall. Found nothing but mesquite desert as along R. 15. Had lunch + went back to El Oasis. Bought gas + drove to Hermosillo. Asked directions to Nacori Chico + other towns recommended by J.T. Marshall as Five-striped Sparrow locales.

Took road about 6 km south of town leading to La Colbrado. This apparently was non-existent town, but we found Mazatan. Asked our directions here + decided to go our own way.

mi. E Mazatan vegetation became much greener + more lush. An Acacia-type tree became dominant, + country is hilly. Finally found a rocky hill + stopped. Chased out pair of Douglas Quail + at least 1 Five-striped Sp. John recorded some songs + we decided to stay here for night.

Had supper, wrote notes, + went to bed. Area 15 mi N of El Oasis had rain in past week or so.

Temp. 72° min.
100° max

L. L. Wolf
1963

Journal

July 13 20 mi. E. Mazatlan, Sonora, Mexico

Up at 0530 after a sweltering, humid night. After breakfast I went up into small gully above camp + watched (or tried to) Amazilia quinquestrata foraging. Saw 2 periods of foraging. ~~It~~

Near where I was watching a Common Ground Dove was feeding 2 partly feathered young. Nest, mostly of grass stems, was on nearly horizontal limb where branch had broken off. Adult would fly down to ground in small (10' diameter) bare patch (of shrub layer) then return to nest 20 feet away. Approach nest by landing on limb above nest + walking to nest. Always seemed to squat down while on nest.

Left at 0830 to try to collect some S-strikes in areas away from this "study" area. Once song heard the ♂♂ are easy to find - usually on exposed perches in vegetation taller than general canopy. No ♀♀ were encountered.

Varied Bunting, Blue Grosbeak, + Broad-billed Hummer are common on the hillsides.

Vegetation on hillsides often forms a closed canopy at 7-10 feet. Most of these trees are legumes. A few trees (white bark) project 30-40 feet up + stand as emergents. Understory is mostly young trees + an herb layer. Herb layer looks to be

S. strike
habitat.

LL Wolff
1963

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Journal

July 13 | relatively recently began to grow. Probably rains have not been here long.

Returned to car & drove ~ 8 miles toward Mazatan to find good shade to shin under. By 0800 it is hot & humid & field work is a real chore, especially chasing 5-stripes thru the thorny vegetation. Unfortunately, there are no streams with water in which to take a bath. Stopped at ~~km~~ 101 along river bottom. Here as at other camps the flies are terrible, but there is shade. Prepared specimens & had lunch. John Torca went out to find Douglas Quail. 2nd time was successful. About 1700 I went out to collect a 5-stripe singing on hillside above us. Managed to get 7, including our first female. Prepared these birds, then drove back to km 114 to have supper & pitch camp. As growing dark it became very cloudy & about ~~20~~ 2000 began raining. Raining when we went to bed, but not very hard. Hot & humid.

July 14 20 mi. E. Mazatan to Guaymas, Sonora.

Up at 0515. After breakfast spent until 0915 up on hillside observing 5-stripes. Have found best way is to let them come to you so I actually have very few minutes of observation for time spent. Saw more foraging & a little pair behavior.

LH Wolf

1963

Journal

July 14 John tried to record mouse songs - loose setting so recorder not working. He then went out to collect. Not feeling well so was back by time I returned from observing. I went out for about an hour trying to collect around 5-stripes. At this time of day they are not singing often & trying to get close enough to shoot is difficult. I did get 2 Amphispiza canalis in more open river bottom & a Varied Bunting on the hillside. Prepared specimens then started for Hermosillo. Had lunch along road.

Drove to Guaymas - arrive ~ 1600. After seeing bay drove north of town to creek - 3 Willetts?, on small pond. Back to main highway & took room in Motel Martin.

Had supper & wrote notes.

Found only Ground Dove & Gilded Flicker w/ young. Found no nests active or other signs of breeding. Do all birds in this area wait for summer rains?

July 15 - from Guaymas to 27 mi. S. Ciudad Obregon, Sonora, Mexico had breakfast at motel. In Guaymas bought drinking water 1/2 block off main street on Calle 17 or 18(?). Took care of other chores & started south. Stopped at Empalme to check

LH Wolf
1963

Journal.

July 15. Few shorebirds on mudflat - 1 Willet & 1 Great Blue Heron. Stopped 20 miles S. Guaymas in dense legume, cactus, & other species thorn scrub hoping to find Rufous-winged Sparrows - no luck. All common avian associates were present (see species list) but Rufous-wings were not. I would guess that understory is too dense, not leaving enough bare, open ground to be good for Rufous-wings.

Next stopped at Pitahaya - a locality where Dr. Pitelka collected Rufous-wings. Area looks good but we heard none singing in 10-15 minutes. It was about 1200, but these birds sing even in heat of day.

Continued thru Ciudad Obregon - bought gas - south toward Sonora border. This after having lunch on banks of Rio Yaqui. River was down & muddy. Some young boys said it would be several months before it had a lot of water. Saw a few tropical birds so collected here for about 1/2 hour. John got 3 Boat-tailed Grackles, 2 Tropicans, & 1 Cassin Kingbird. I shot an imm. ♂ Happy Wren which came in to squeaking in dense undergrowth. Area along river has tall trees & places where undergrowth is fairly dense, but latter is being cleared out.

South of Ciudad Obregon began hearing Rufous-wings again from open mesquite woods. Turned to west

Carpenter's
habitat

Carpenter's
habitat

LLWp1f

1963

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Journal

July 15

on road at km 1812 marker. followed in straight for $\frac{1}{2}$ mile - good, isolated, camping spot. Prepared young Curve-billed Thrasher giving us by boys at Rio Yagui. Out to check on Rufous-wings while John finished preparing his birds. Collected six - 2 ♀♀, both w/ ruptured follicles. Found one nest.

Had supper, set up camp & went to bed.

July 16

27 mi. S. Ciudad Obregon, Sonora, Mexico km. 1812.

Had light shower at ~ 0400 last night. Then about 0330 heavy rain + strong wind. Finally blew tent down at 0400. John & I spent until 0530 in car waiting for rain to let up. Had breakfast into field - John to record & me to observe. John reported a ♀ Rufous-winged Sparrow just starting to build nest so I watched her from 0730 to 0930. Put out things to dry + put up tarpaulin as shade as clouds mostly gone & it is going to be another hot day. Hunted from 1000 to 1145. Got 2 carpalis + 1 Gila Woodpecker.

Found a ♀ carpalis incubating four eggs. Gila Woodpecker was from group of 4+ hanging around an organ-pipe cactus. Spent afternoon preparing specimens + getting equipment in order after rains. Checked on nest-building carpalis - no activity. John went out to look for a Curve-billed Thrasher. I wrote notes

Back out about 1630 for more Rufous-wings.

Seemed to be more easily chased into piers than in A.M.

LL Wolf

1963

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Journal

July 16 Prepared specimens, had supper + went to bed.

July 17 27 mi. S. Ciudad Obregon, Sonora to 9 mi. N. Guamachil, Sinaloa

Overslept until 6:45. Had breakfast. I went out to shoot some Rufous-winged + check on nests where John started packing to leave. Took the 4 eggs from nest discovered yesterday for Dr. Sibley. Collected 5 carpalis + 1 Verdin. 2 carpalis were a pair. When I returned to prepare specimens John went out to get White-winged Dove eggs. He also brought back 1 Amphispiza carpalis. He collected egg-white + we packed car. Drove to Ciudad Obregon where met a local man who took us to buy drinking water + then to the market. Bought some fruit to supplement our diet.

Then on to Sinaloa. At Las Mocthis turned east on road to San Blas. Had hoped to reach foothills of Sierra Madre but road was so bad beyond San Blas we turned around. Ate around + ~~for~~ to the Rio Sinaloa + a little south is all farm land - mostly cotton, some sugar cane + rich. Saw Black-bellied Tree Duck, prob. Fulvous Tree Duck, + Mits flying around fields.

Drove to 9 mi. N. Guamachil where ^{to right} the road leads off into mesquite forest. Followed road - 1 turn to left - for 4 miles.

LAWSON
1963

Journal

July 17 Pitched camp, had supper just as it started to rain. Went to bed after standing in rain for semblance of bath.

July 18 9 mi. N. Guamuchil to Culiacan, Sinaloa

Up at 0520. Had terrific rain storm with high winds last night. Pans put out contained 4+ inches water. Now only partly cloudy. After breakfast I go out for Rufous-winged Sparrows while John stays in camp to try to dry things out. R-wings are not as common here as S. of Ciudad Obregon. Found pair of Thick-billed Kingbirds + collected both. ♀ had brood patch.

Our first encounter with parrots - flocks up to 8+ of White-fronts + 2-3 groups of 2+ birds of Orange-fronted Parakeets. Watched White-fronts feeding on legume pods. Actively flying thru most of morning hours.

John found nest of Rufous-wing + I found a Ground Dove nest with 2 eggs. Adult incubating on both. Cow-birds Thrashers in family group.

Had several visitors to camp including some fellows trying to start farming some land behind camp. They say this is the first rain of the year. It has halted work on their farm. If this is 1st rain then Rufous-wings have anticipated the rains ~~at~~ it.

Prepared specimens + packed to leave - everything dry. Found another road to highway - ours blocked by water.

rain

LLW:ff
1963

34

Journal

July 18 Drove to Culiacan & then took road southeast to El Dorado. Most of way is irrigated agricultural land - sugarcane & rice. Saw White & White-faced Glossy Ibis feeding in one field. Black-bellied & Fulvous Tree Ducks flying over fields. Fulvous in flocks up to 8 - bl-bellies mostly in pairs. Douglas Quail flush along edge of road. Boat-tailed Grackles & other icterids very common. Could find no good place to collect Rufous-winged Sparrows - most of country cultivated & rest now partly flooded. Had to turn back at El Dorado for Culiacan. Direct road to highway damaged by rains.

Took motel room, had supper, wrote notes, & to bed.

July 19 Culiacan, Sinaloa to Rancho Batel, 9 mi. E. Santa Lucia.

Up at 0600. Drove south from Culiacan on R. 15 to Mazatlan. Vegetation still semiarid although very green at this time of year. Noted hummingbirds hovering above road way north of Elota. Hit one with car - was a young ♂ Helioaster. Not all were of this species.

At Mazatlan had car repaired - spark plugs & carburetor cleaned. Finally left about 1300. Drove to just south of Villa Union when turned east on Durango highway. Winds across two foothill ranges before starting up into Sierra. Got up into clouds & several hard downpours. Arrived at El Palmito & found we had gone too far. Turned

LH Wolf

1963

Journals

July 19

around + 8 miles down road met a fellow from Oregon who is collecting professionally for University of Kansas Museum - mammals + herps. He reported seeing a jay which sounds like the Dickey Jay. At Rancho Batel - a small tienda on road w/ a house around curve below + up a small road. Fellow lives here who is supposed to be able to collect Dickey Jays for us - 5 pesos/bird. He says they are about 20 kilometers away + points to NW. to a ridge. He said someone hired him in March, 1963 to collect some of the jays.

Very dark to eat as we start supper at 1815. Probably will rain during night.

July 20

9 mi. E. Santa Lucia, Sinaloa, Mexico El Batel.
Up at 0500. Into field after short breakfast. I walked up to main road to walk generally eastward. Terrain is very hilly (mountainous) + covered with pines, oaks, + cypresses. In some barrancas there is a shrub layer which is quite dense - Blue Mockingbird, Turdus assimilis common in here. Dense brush - 2nd growth - is habitat of Melospiza kiewia. In open pine woods found Hypocrite Tanagers with full grown young; Mexican Junco with grown young + Chipping Sparrows that were feeding young. Encountered a flock of 30+ White-rumped Swifts with some Chestnut-colored Swifts mixed. They were feeding from low over trees to

LL Wolf
1963

Journal

July 20

500+ feet up over a barranca or valley.

Our boy who was supposed to bring us jays informed us that he couldn't get any unless we loaned him a shotgun. No dice!! Tomorrow he + John are to go together to place where jays are supposed to occur.

Day varied from bright sun to completely overcast + even had little rain in P.M. Again at dark can see clouds below probably taking rain to valley tonight.

Spent afternoon preparing specimens. Also watching mist out. John went back out about 1530 for some more birds. I finished just before supper, he carried over to after dark.

July 21

9 mi. E. Santa Lucia, Sinaloa, Mexico El Batel.

John left at 0600 to go with local fellow to find Diary Jays. On his return he reported seeing ~~of~~ a flock of 11 ± from which they collected seven. Apparently locality was valley just over hill from highway + restaurant at El Batel.

I looked for wallet lost yesterday + then walked to west to look for Rufous-crowned Sparrows where found yesterday.

Saw both Chestnut-collared + White-rumped Swifts today, but both only for short time + in much fewer numbers than yesterday. Flock of 6± Progne sp. flew over calling + circling. Appeared to be light ventrally, except for darkish throat.

Back to prepare specimens at 1000. With birds

LLWOLF
1963

Journal

July 21 from the out I spent until 3:30 PM + then wrote notes.

Day started clear + bright with scattered clouds. Clouds were heavy over lowlands to west. By 1530 clouds were moving up thru the valleys + thru our camp. Rained hard for 20-30 minutes + stopped by 1630.

Black-headed Grosbeaks, Red-faced Warbler, + Martins seen at this locality may all have been migrants as they were only seen once. Except for Martins other two were right at camp + should have appeared again if on territory.

July 22 9 mi. E. Santa Lucía, Sinaloa to 7 mi. N. Tepic, Nayarit, Packed up immediately after breakfast to leave for rally. Took 15-20 minutes to walk to spot where John saw Dickcissels the day before. Not there. Part way down mountains we stopped in an area of dense second growth about 10-15 feet tall to collect. Too steep + dense to collect, but saw Sinaloa Wren commonly plus an oriole, Melospiza bicolor, + Myiobuteo mexicanus. Continued on to coastal plain. After getting gas in Villa Unión we drove south toward Tepic. Vegetation is lush second growth with few to no big trees remaining. All along road are recent puddles of water - probably mostly temporary but some

2LWOLF
1963

Journal

July 22 with Jacanas, one with 2 Black-bellied Tree Ducks, + several with Olivaceous Cormorants. Turned to west on road to San Blas, Nayarit. About $\frac{1}{2}$ from highway to town is magnificent palm forest where we hoped to camp, but could find no places suitable. Next come mangrove swamps which continue to San Blas. Saw a resting colony with Little Blue + Louisiana Herons, Snowy + American Egrets, Black-crowned Night + Green Herons. Also Anhingas + Cormorants. Took road to Playa Mautachen, a nice sand beach. Here found 5 American Oystercatchers, 2 Black-bellied Plovers, 2 Wilson Plovers, 2 Willetts, Caspian Terns, + gulls + Brown Pelicans.

Being unable to find a good camping site anywhere along road to San Blas we drove south toward Tepic. In mountainous country - primarily oaks - heard Botteri Sparrows singing. Managed to collect one ♂. Started looking for camping place. Finally drove thru closed gate into a farmer's field. Just as we were replacing gate heard Botteri Sparrows here - 7 miles N of Tepic. Looked like rain so set up camp had supper + prepared specimens - skeletons - after dark.

Little
habitat.


LLWOLF

1963

Journal

July 23 9 mi. N. Tepic, Nayarit to Guadalajara, Jalisco.

Rained hard + blew last night. Fortunately we had put up tarpaulin above tent. Remained cloudy all morning + looked like rain as we left about 1230. Spent early morning observing Botteri Sparrows. Mostly one bird - singing ♂. Breeding seems to be just starting here. Then tried to collect Botteri Sparrows + various other species. Found a foraging family group of Basileuterus rufifrons - at least two young. Collected an adult + two young. They were foraging in 10± foot trees spaced as if in an orchard - very sparse herb layer. Sinclair Wren also here.

Ground-chats were relatively common in field, generally at edge in brush. I heard song sounding like a Yellow-throat which I attribute to this species. Saw several flight song performances by Ground-chats.  in this fashion with song starting before take + ending before reaching new perch.

Broke camp + headed for Tepic. Tried to find Aimophila ruficauda in cultivated land around Tepic.

Saw only one bird + was not able to collect it. This was in pastureland along a stone fence. Also Botteri Sparrows there.

*my friend
+ brother
+ sister*

LLWoff
1963

43

Journal

July 23 - In mountains between Tepic + Guadalajara the vegetation becomes much more xeric with mesquite-like trees + Quercus. Occasionally climb up into pine-oak.

Met hard thunderstorms at several places between Tepic + Guadalajara. Was cloudy the whole way.

Arrived Guadalajara about 1715. Repaired specimens, had supper, wrote notes + to bed. Staying at Hotel del Parque, Av. Juarez 845.

July 24 - Guadalajara, to 6 mi. SW La Huerta, Jalisco km. 1114
Had breakfast at hotel. Cashed checks, had car greased + oiled + went to a supermercado. Prices are outrageous so bought very little. Left Guadalajara at 1100. Drove SE on Mex 15 + 80. Took turnoff to Manzanillo. Drove on gravel road for much of 160 km to Autlan, Jalisco. Much of country is fairly arid with cacti. Farming has cut up most of the valley land + some in the mountains. We could find no place to camp along road in valley around Autlan so continued SW. Crossed summit of hills + ran into cloud layer + rain down other side. Wound down into valley which is also heavily farmed + very wet at this time of year. No camping places. Climbing into

LLW:18
1963

4

Journal

July 24 hills again - should be lost before Pacific coastal plain - we finally stopped beside road at km. 1114. The using shed erected by local people who work fields around this area. It is ~~just~~ almost completely overcast + a cloud bank is coming in from west.

While talking to some local farmers this evening we learned that Amophila ruficauda is locally known as tortilla y chile because of habit of shuffling + flitting thru grass + bushes.

July 25 6 mi. sw La Huerta, Jalisco, Mexico km. 1114. ~~up~~ ^{at} 0615. While having breakfast heard a tinamou calling on hill above camp. ^{yellow-winged} Caciques active in tree across road - at least two nests being built. Amophila ruficauda around camp began singing + chattering. Spent hour recording vocalizations. Then until 1030 observing both caciques + ruficauda. Had pair of Mashed Tit in large trees around camp. Calling occasionally. Can hear one trogon + several Russet-crowned Motmots calling. Heard a song which is very reminiscent of Amophila carpalis - - - - - When I chased it down was coming from near + on ground in dense thicket of second growth - Olive Sparrows. Sincha whens are common in the thickets + Icterus pustulatus is common +

LLWOF

1963

Journal

July 25 6 mi. SW La Huerta, Jalisco, Mexico Km. 1114
 nesting in thickets + about nests in taller trees.
 Pair of San Blas Jays flew over camp + into taller trees
 along stream below camp.

Went out to collect about 400. Was unable to find
 any A. ruficauda, but took the Sierrita Wren + a
Centurus chrysomys which I gave to John as UUMZ
 has no skeletons of this species.

Prepared specimens, had lunch + went back into
 field. About 1430 it began to rain so I came back to
 camp + wrote up species list. Gradually the farmers
 came in from fields + stopped to see how we had done.

Had supper. Still raining as I write these notes
 at 1845.

About 1830 Yellow-winged Caciques begin to
 congregate in 10-15 foot second growth across road.
 Several trees + legumes are used as temporary
 stopping points along way. John has taken 5 birds
 from one dead legume - three on July 24 + 2 tonight.
 I estimate 100+ individuals, most coming from
 SW use this area as a night roost. They do not use
 the tall trees, but roost in the dense second growth
 thickets.

Caciques
 roosting

LLWOLF
1963

Journal

July 26 8 mi. SW La Huerta, Jalisco to 17 mi. NW Manzanillo, Colima
Up at 0600. Rained more during night. After breakfast
I went up hill to follow "finamou" call. As local farmers
told us it was the Banded Quail. I flushed a covey of
15-20 from dense second growth woods. Some were
in small openings on ground + others perched in
trees.

Spent until ~ 0800 observing Amphispiza ruficauda. Then
John + I tried to collect the group around camp. Not
very successful. Chased some others + back to prepare
specimens. Finished specimens + had lunch. Broke
camp + took pictures of area. Much of area is being
farmed in corn. Rest is second growth woods, very dense,
approx. 10-20 feet tall with a few big trees along
the stream. Legumes are common + acacias especially
so along road. This seemed to be preferred locality
of A. ruficauda.

ruficauda
Habitat.

Drove SW to coast + along coast to Manzanillo.
Saw Brown Boobies in harbor along with Brown Pelicans,
Laughing Gulls + a large Tern. On toward Tecoman.
Stopped along dry river bed about 3 miles south of
town. Collected a juv. San Blas Jay from group of
three. Mosquitos are terrible so we headed back
to Manzanillo + go NW along road we came in on.
17½ miles NW a road goes to ocean at Playa de Oro.

LL Wolf
1963

Journal

July 26 - cont'd.

Took this road ~ 1 mile + stopped for night right along road. Prepared jay, had supper after writing notes.

Collected a Mottled Owl that came in to squeak.

July 27 17 mi. NW. Manzanillo, Colima to Autlan, Jalisco.

up at 0630. had breakfast then stayed around camp to watch tent + car while John walked along road toward ocean. Saw Sinaloa Wren building a nest at extremity of branch 20 feet up in dense, shrubby second growth. John returned with a Short-tailed Hawk that he shot after it came in to squeak.

We packed car + drove to highway. Here collected 4 Amorphila ruficauda in legumes along road. One was around small hill in cornfield - no legumes, but several piles of sticks + grass relatively tall.

Drove back toward La Huerta, Jalisco. Noticed that most of the permanent water courses are being choked out by water hyacinths. Area along highway has many coconut + banana fincas.

Stopped at 6 mi. SW La Huerta + took one of 3 Amorphila ruficauda birds seen in grassy area. Found more A. ruficauda in legumes along fences NE. of La Huerta.

Climbed hills SW of Autlan + stopped for

ruf. cauda
habitat.

LLWJF

1963

45

Journal

July 27

hunch in oak woodland. In brushy area along stream I collected a Rusty Sparrow that came up to schusa. John found a family group of Campylorhynchus jocosus + took 1 adult + 1 young.

I collected two more Rusty Sparrows + John got one. They were all in oak woodland - rather dense - or in brush where oaks have been taken out. ♂♂ are singing + one ♀ taken has a brood patch, but every looks like they are just starting to breed.

Heard pair reunion chattering of Melospiza kienneri + took the ♀. Chattering reminds me a little of notes in similar situation of Albert Towhee.

Drove thru Buttan + tried to collect more A. ruficauda - no luck. Took dirt road to El Bouello looking for camping place. Came upon covey of 6 Bob-white. Four taken - ♀♀ coming into breeding condition + ♂♂ with enlarged gonads.

Finally found place to skin birds. Just as we finished the first it started to rain. As there was no sign of let up we drove to Buttan + took a room in Hotel Valencia. Had supper + prepared specimens. Wrote notes + to bed at 2300.

vafesum
habitat
+
breeding

L. Wolf

1963

Journal

July 28 Autlan, Jalisco to Guadalupe, Jalisco.

up at 0600. Bad + pillow very hard. Sky overcast + sun just coming up. Drove NE on Mex. 80. 8 miles out of town as we were descending from first climb into hills from valley heard Amphispiza - like chatter. Proved to be A. humeralis. No place to park so continued on into valley where tried to collect Amphispiza ruficauda while we had breakfast. Found several groups of birds + some apparently only in pairs. Collected four.

Drove back to spot where ~~heard~~ saw Amphispiza humeralis earlier (about 1 mile back toward Autlan). To observe + collect. Birds I saw earlier were a pair chattering low in bushes on rather open, grassy hillside at edge of thickly vegetated (15+ feet tall) barranca. Found birds again - usually in groups of 3-5. Probably 3 or 4 such groups along about 1/4 mile of highway. Collected five plus three A. ruficauda + one Geococcyx velox. Started back for Guadalupe about 1000. Stopped in Juchitlan for gas - sold by a tienda from 50 gallon drums.

Stopped a few miles NE. Tecolotlan, Jalisco for lunch. Nice oak woodland here with rather dense herb layer + shrub layer. Heard Cathartes aura + Thryothorus senegalensis singing. Prepared specimens at edge of road.

Continued on at 1545 for Guadalupe. Just NE of Cocula we stopped to look at a White-tailed Hawk.

refined to
Amphispiza

humeralis
habitat +
groups

LLW & F
1963

Journal.

July 28 cont'd.

perched in tree about 50 yards from road. When tried to start up again wheels locked. Apparently differential is frozen. John thumbred ride into Guadalajara & I write these notes as I sit waiting. We had been hearing a peculiar knocking sound at times on this trip to Antlan, but thought it was a loose muffler & tailpipe - apparently more serious. Towed into Guadalajara arriving at 2315. No rooms at Hotel del Parque so to Hotel Roma where finally able to cash check to pay \$300 for tow. Had supper at midnight & to bed.

July 29 Guadalajara, Jalisco

Spent until 1500 getting car repaired. Had to be towed to Chev. garage. Turned out that brace for drive shaft had broken & was jamming drive shaft. Soon fixed only to discover that shock absorber had apparently been broken during towing. Fixed this - but came to \$275. Had lunch & looked up a friend who showed us around Guadalajara.

July 30 Guadalajara to 9.5 mi. N. Tlaxhuacan del Rio, Jalisco

Spent morning waiting for beeboy at Hotel del Parque to arrive for work. He took my shotgun to have it fixed. Finally arrived at 1130. First time I tried

LL Wolf

1963

Journal

July 30

gun it broke again. Left gun with bellboy + drove to edge of town looking for road to Ixtlahuacan del Rio + the Barranca de Obispos. Went on several wild goose chases - one on miserable road to town of Rio Blanco. Finally found by taking Avenida Alcade to north + turn on Salida Saltillo which is just past a Normal School. This is road down into the barranca + up the other side to Zacatecas. Listened at various spots along road for 5-striped Sparrows, but heard none. Found pair of Rusty Sparrows on an open mesquite - like parkland hillside. Continued on thru Ixtlahuacan to miserable road again. Drove thru farmland, oak woodland, + oak-juniper to spot where there was an impassable mud-hole. A farmer living nearby said we were about 30 kms. from Moyahue, Zacatecas, a Webster locality for 5-striped Sparrows.

Turned around started back toward Guadalupe.

Found 3 singing ♂♂ Botteri Sparrows in sparsely wooded pasture land. Able to collect one.

Camped on road to Oaxtepec 9.5 miles N of Ixtlahuacan. Looked like mixed oak + juniper but rather dark as we pitched camp. Started to rain as we went to bed.

L. H. Wolff

1963

Journal

July 31

9.5 km. N. Ixtlahuacan del Rio to Cuadalaajara, Jalisco.

Up at 0600. Jays (Mexican) calling around camp while have breakfast. Walked along road looking for Rufous-crowned Sparrows. Found pair of Buff-breasted Flycatchers foraging from oaks + pines. Used perches from 1 to 30 feet up. Also pair of Spotted Wrens + family group of Bewick's Wrens. John reported 8+ Mexican Jays in the flock. Adult Grace's Warbler feeding 2 juveniles beginning postjuv. molt. Family group of 5-6 Eastern Bluebirds, young about full grown, but still in spotted plumage.

refuge
forest

Rufous-crowned Sparrows in relatively open areas of this pine-oak woodland.

Prepared specimens + had lunch. Started driving back to Cuadalaajara, listening at several places for 5-striped Sparrows. Stopped at km. 32 again but did not hear them. Rusty Sparrow was singing downhill. John heard + saw pair of Amphispiza ruficauda in fence row. Tim. S. Ixtlahuacan del Rio. Finally heard a ♂ singing in densely vegetated arroyo as begin descent to river. Had several miles earlier collected 2 of 4-5 singing, spiced ♂ Amphispiza ruficeps. Managed to collect this ♂ 5-stripe while John saw pair of Blue-crowned Parrotlets land in legume just above road. Also heard another 5-striped Sparrow + a Rufous-crowned Sparrow singing on the hillside.

LLW 15

1963

Journal

July 31 cont'd.

Stopped 10 mi. S. Ixtlahuacan de Rio to record Rusty Sparrow songs. Recorded 2 different singing ♂♂ spaced about 50 yards apart. Heard 5-stripped Sparrow - prob. 2 - singing in densely vegetated arroyo below road. Not able to collect either.

5-stripe habitat

After climbing up to plateau above Barranca on way back to Guadalajara we stopped to prepare specimens. On rocky, grassy, leguminous - tree + shrub hillside above road we heard Amophila rufescens, A. ruficauda, + A. ruficeps. So here in Barranca de Oblatos 4 species of Amophila occur + 3 occupy very similar habitat. Only the 5-stripe appears to have a distinct habitat preference.

habitat of rufescens, ruficeps, ruficauda

Back to Guadalajara for supper + preparations to leave for Morelia + Tzitzio, Michoacan in the morning.

August 1

Guadalajara, Jalisco to near Tzitzio, Michoacan (20 mi. SE. Morelia)
Up at 0700. Had breakfast + drove to market place. Sideswiped by bus outside market. Then to supermarket to shop. Back to hotel when billboy has my gun repaired + cleaned. Then start east. Drive to W end of Lake Chapala on Mex. 15 then turn north + follow road around lake. Edge of lake lacks much emergent vegetation except at east end where very shallow. Followed stream as went SW from La Barca to Mex. 15

LLWOLF
1963

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Journal

August 1 cont'd.

~~August 1~~ Stopped at Typha marsh in ditch along road. "Schussed" up 3♀ + 1♂ Chapala Yellowthroats. Were spaced about 30-40 yards apart in marsh. ♂ + 1♀ together.

Continued on to Morelia. Much of country is cultivated but road goes thru some nice oak + pine-oak woodlands. Drop down into valley at Morelia. On thru Morelia for about 17 miles - thru 2 valleys. Just beyond road crew encampment at Temescal a gravel road turns off to South. Followed this into oak woodland with few scattered pines. Began raining ~~the~~ very hard. Finally found old shed used by work crews on roads. Found 2 dry areas - pitched tent in one + put stove in other. Had supper + went to bed.

August 2 20 mi. SE. Morelia, Michoacan, Mexico

Up at 0600. Had breakfast while talking to fellow passing by on road. Walked down road toward Tzitzio from the shed.

Encountered several Rusty Sparrows in shrubby 2nd growth. Spotted Wrens were accompanied by full grown young. Saw several nests in oak trees + some in legumes. Cañon Wrens seen on several of the roadcut banks.

Watched both Black-headed Saltators + Lesser Goldfinches feeding (or picking up grit) on bare vertical rock + clay face. Composition of the flock varied + 2 species seemed to stick to others.

LL Wolf
1963

Journal.

August 2 cont'd.

of same species. Saw some immature Siskins there. Just after collecting a Siskin, a pair of Sparkling-tailed Hummingbirds went thru courtship display about 30 feet away over roof. A family group of White-throated Robins was feeding in dense tangle in shrubby second growth. A young bird, full-grown, collected had blue berries in throat.

6+ Gray Siskin Flycatchers moved thru oaks along road. 2 young in post-juv. molt were collected - one had whole digestive tract full of mistletoe berries. Watched both adult Grace's Warblers around full grown young. Not sure if both feeding.

Back to car to prepare specimens. Discovered this spot to be a bus-stop + point where two trails intersect road. So had visitors most of the day.

Began to cloud up + thunder about 1500. Went back into field until 1630. Collected a Berylline Hummingbird which John is going to preserve in formalin for a graduate student at Michigan.

Began to rain about 1730 as I finished writing notes.

Area is mainly oak woodland much of which has been cleared + is coming back in shrubby 2nd growth. Few short needled pines on hill sides.

refers to
habitat.

LL Wolf
1963

Journal

August 3

20 mi. SE. Morelia, Michoacan to Cuernavaca, Morelos.

Camping area for tourists at KM 258 on M15 west of Mex. City.

Up at 0600. Had quick breakfast then into field to try to record & observe Rusty Sparrows. Found a singing ♂ & recorded some songs before he disappeared with a ♀. Collected several birds & found another ♂ Rusty Sparrow in oak woods above camp. Recorded & watched foraging behavior. Made two unsuccessful attempts to collect.

Called in a Glaucoideus griseus by imitating its call.

Berylline Hummingbirds were very excited by presence of owl.

Prepared specimens, ate lunch, then started driving to Morelia. Climbed up into pine oak & finally fir. Near summit is camping area mentioned above. Drove thru several untraveled valleys. West of Toluca, Mexico on cultivated & pastured plateau we heard Swarush Sparrows singing in fields.

Took bypass thru Desierto Parque Nacional to Villa Obregon to miss Mexico City. Got jammed up in roads around University. Finally found road to Cuernavaca. Took toll road (Expreso). Drove east from Cuernavaca toward Cuatla for 9 miles. Had hurried supper & threw things back in car to go back to Cuernavaca just as it started to pour. Took room at Villa Internacional.

LL Wolff
1963

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Journal

August 4

9 mi. E. Cuernavaca, Morelos, Mexico.

Gas; grease + oil - 43484.1 - Cuernavaca, Morelos.

Up at 0545. Still dark as we drove to Cañon de Robas. Had breakfast + then hunted in drier end of canyon for Aimophila humeralis. Still further along road found chattering Aimophila ruficauda. Hunted for about an hour then drove back about 1 mile toward Cuernavaca + hunted in canyon. There is a trail that runs all along creek in bottom of canyon. Vegetation is fairly dense with trees up to 60-70 feet. Much of canyon appears to have been cut over + is coming back. Saw family groups of Icterus pusillus, Turdus assimilis, + collected a juvenile Myiopagus viridicatus. Found ♀ Chlorostilbon canivetii building a nest + a pair of Acchmophorus mexicanus feeding nestlings. Also juvenile Catharus aurantirostris.

Went back to drier area east of canyon to skin birds. Heard Aimophila ruficauda chattering in legume areas. Prepared birds then back to Cuernavaca to have car greased + oil changed. After supper drove North on the free Mex. 95 to a point W. of Tres Amigos. Set up camp in what looks like picnic area in this pine-oak area. Hope for Aimophila rufescens in the morning.

Wrote notes + to bed at 0830.

HLWCF
1963

Journal

August 5

various localities N. of Guernavaca, Mexico.

Up at 0545 just as starting to get light. After breakfast John went out collecting while I tried to record + observe Rusty Sparrows. Not much success. Went out collecting for short time until ready to leave. Park car + drive several miles further North on Mex. 95. Road climbs up to some good pine-oak that is just starting to be cut out. Spent until 1100 collecting here. Tipula erythrophthalamus, Troglodytes brunnicollis, Peucedramus faenates, Catharus occidentalis, Vireo huttoni, Lepidocolaptes cuculoides all had fully grown young traveling with the adults. Catharus were still singing.

Trails for lumbering make easy walking thru forest. In some places lumbering has been earlier + there are some patches of thick, shrubby second growth. Birds to some extent are in loose mixed flocks - Red Warbler, Blue Warbler, + Brown-throated Wren.

Drove on into Distrito Federal about 1 mile where set up tarp, had lunch + spent all afternoon preparing specimens. As we drove N. Striped Sparrows became common as soon as we found open bunch-grass meadows.

About 6 PM drove west in rain from Tres Cumbres to Lagunas de Zempoala. Very nice country with small mountain lakes. - no camping places. Back to last night's camping area for supper + write notes.

Cloudy most of day with rain + wind much of afternoon. Light rain about 8900.

LL Wolf
1963

Journal

August 6

6 mi. N. Cuernavaca, Morelos to 9 mi. SE Izucar de Matamoros, Puebla

Up at 0545. Broke camp + had breakfast. Drove north to pine-oak association where collected yesterday.

Dropped John here + I continued on N. of Tres Cumbres to bunch grass areas to collect Striped Sparrows.

Found groups of these birds, including some juveniles + laying ♀♀. Also family groups of Mexican Juncos.

Red Cross bills + Bl.-headed Siskins flying overhead.

Back to pine-oak where collected a Catharus occidentalis + a young Brown-Throated Wren. Also was with an adult.

Drove back toward Cuernavaca + prepared specimens. Had lunch in Cuernavaca. Drove to Cuautla out of Cuernavaca. Stopped about 11 miles E. of Cuernavaca to see if any juvenile Aimophila ruficauda. None seen. Found A. humeralis + A. ruficauda in same area. Again humeralis was in denser - almost closed canopy - vegetation while ruficauda was in fence rows but could be flushed into denser vegetation.

Most of land to Izucar de Matamoros from Cuernavaca is cultivated. Did climb into some low hills in Puebla where good thorn scrub vegetation, but no camping sites. Bought few items in market in Matamoros then on SE on Mex 190 toward Oaxaca. Pitched camp on road along stream, miles S. of Matamoros. Not a good camping site. A. humeralis just singing + chattering at 1900.

ruficauda +
humeralis

L. E. Wolf

1963

Journal

August 7 9 mi. SE. Izucar de Matamoros to 7 mi. S. of Piaxtla, Puebla

Up at 0600. Into field with sound of Aimophila chattering from hillsides. Just up thorn woodland hillside from camp found a pair of Rusty Sparrows. ♂ singing. Pair of Varied Buntargs became very excited as I approached patch of 2-3 foot shrubs. Was unable to find nest or young. At shrub to attract ♂, a ♂ Aimophila mysticalis flew into top of nearby 20 foot tree. Immediately collected him + then ♀ foraging nearby in legume. On up hillside found several more pairs of mysticalis + one pair of Aimophila humeralis. Flushed a Common Ground Dove from nest with one egg. Several pairs of Nutting Flycatchers were foraging from exposed branches in the legumes. Family group of Happy Wrens were foraging in tangle of vines about 12 feet above ground along bank of stream. Heard several more ♂ Rusty Sparrows + finally collected one. This seems rather odd habitat for them. Mysticalis is the common sparrow on the hill sides where we hoped to find humeralis.

Prepared specimens + v (400) Started SE along Pan Amer. Hwy. Just south of Tehuitzingo (8 miles) we took a gravel road south to Piaxtla where we had to pay road upkeep fee of 5 pesos (40¢). The road became almost impassable in some spots. Finally just pulled off about 100 feet from road + made camp on grassy knoll.

While I wrote notes John went into field. Came

reflexus
mysticalis
humeralis

LLWOF
1963

Journal.

August 7 cont'd.

back with Maggie Jay + a juvenile Amphispiza bilineata - our first on this trip. Bird was almost thru postjuv. molt. Prepared these two specimens after supper. Finished notes + to bed.

August 8

7 mi. s. Piaxtla, Puebla to Oaxaca, Oaxaca.

Up at 0545. Heard Amphispiza bilineata singing as made breakfast so over to record. Also got some recordings of the chatter call. John subsequently got recordings of chatter duet. While John tried to collect A. bilineata I watched a foraging pair near camp. After about an hour discovered they had a juvenile hidden in brush. Immediately got gun + tried to collect juv. Finally collected ♂, then ♀, + juvenile. Juv. has just started the postjuv. molt so is youngest specimen of this species available. Shows faint streaks on brown chest band. John came back with 11 birds + with 5 I collected we started to prepare specimens. Collected another singing ♂ bilineata at 1145. Finished birds by 1300 + packed car. Turned south on Pan American Hwy. hoping to find camping spot near Acatlan, Puebla. No luck. As near Oaxaca border we passed thru a zone of scrub oak + other broad-leaved trees but no legumes. May account for loss of bilineata.

LLWOLF
1963

Journal

August 8 cont'd.

But then why does mysticalis occur? Into Oaxaca we encountered an agave tree forest - trees 10-12 feet tall + other species of shrubs. Unusual vegetation type. Stopped just north of Tamazulapam to collect Dwarf Vireo. Saw a pair, but unable to shoot one. Did get an Aechmophorus mexicanus. These two birds occur in tree lined stream canyons in otherwise arid, thorn-scrub grassland. Most of country from Tamazulapam to Oaxaca is eroded + cultivated. Pass thru pine-oak ~ 40 miles north of Ciudad Oaxaca. Just south of Tamazulapam saw hillsides looking like chaparral of California. This was probably scrub oak + maybe habitat for Amphispiza notosticta as it was a similar area where we collected it south of Ciudad Oaxaca in 1961.

Arrived at Oaxaca Courts at 1930 + had supper. Wrote notes + to bed.

August 9- Oaxaca, Oaxaca, Mexico

Up at 0445. Drove out to 4 mi. SW. Matatlan arriving at 0545. Still dark + cloudy. Birds just beginning to sing. Had breakfast then recorded some vocalizations of a ♀ Amphispiza mysticalis. John went out to collect + observe while Steve found A. mysticalis to observe.

L L Wolf
1963

Journal

August 9

Oaxaca, Oaxaca, Mexico

They are very shy except for singing ♂♂ on exposed perches. Because of density of shrubs + small trees it is almost impossible to follow these birds as they forage. Found a pair which I watched for about 30 minutes.

Searched for several hours for Amphispiza notosticta. Found 2 or 3 singing ♂♂ + collected a juvenile which came in to "chess." Was unable to approach singing ♂♂ closer than 50 yards. John said he approached to 15-20 feet to one singing ♂. Down in stream bottom there are more paths thru vegetation making the approach easier + quieter. Obtained only the one juv. specimen.

Also occurring here apparently in more open areas in scrub oak is Amphispiza ruficeps. They are apparently absent from denser scrub oak which is habitat of A. notosticta + A. mysticallis.

Began raining about 10:15 so returned to Oaxaca City with only 4 specimens. Spent afternoon preparing specimens + doing odd jobs around Oaxaca.

Wrote notes + to bed

Amphispiza
notosticta
ruficeps

LLWDF
1963

Journal

August 10

Oaxaca, Oaxaca, Mexico

Up at 0430. Drove to locale 4 mi. sw. Matatlan. Heard first Amorphila mysticis sing at 0545. Followed within a minute by A. ruficeps + then A. notosticta. Morning was generally cool + damp. Was sprinkling in we ate breakfast. Low clouds moved thru area during most of morning + there was a stiff breeze which made recording very difficult. John spent until about 0930 trying to record Amorphila notosticta. Finally did get some good recordings of one bird + others of another. Later I collected a ♂ from each location where he had recorded so there are probably the same birds as on the tape. I spent early morning trying to find A. mysticis to observe. Not successful. Phylonays + Tanagra musica were feeding on mistletoe berries on shrubs on hillside. Phylonays were very abundant + noisy. Lucifer Hummingbirds are fairly common here as are Rufous Hummingbirds.

Returned to Oaxaca ~ 1200 - just missed hitting a burro on road near El Tale. Spent afternoon preparing specimens. Wrapped + packed one + 1/2 trays of birds for trip back.

Raining at 1700 + 2030. Dr. Charles Bogert of American Museum of Natural History told us this was an unusually wet summer.

Wrote notes + finished preparing to leave in the morning.

LLWOLF
1963

62

Journal

August 11 Oaxaca, Oaxaca to km. 616 on Pan Am. Hwy. south of Oaxaca City.
Up at 0630. Finished packing + had breakfast. Started south from Oaxaca City on Pan Am. Hwy. At km. 608 - 11 miles SW Matatlan, parked car along road + climbed up hill sides hunting for Amphispiza mysticalis. Collected 9 including one juvenile. Found pair of Golden Vireos caring for at least one fledgling. These + mysticalis were on drier parts of hills except Vireos tended to be in lush vegetation along stream beds. Green-fronted Hummingbirds were fairly common in the thorn forest vegetation.

Drove on to km. 616 where ^{dirt} road leads off to west into little valley along Pan Amer Hwy. Area is flat + grassy with thorn forest vegetation. Except that it is fairly near road it is a good camping spot. Had lunch + prepared specimens.

Back into field to find Bridled Sparrows to observe. Except for occasional bouts of singing from individual ♂♂ the birds are very quiet + difficult to find.

Had supper, wrote notes, + to bed. Was cloudy up + looked like rain.

August 12 Km. 616 on Pan Am. Hwy. S. of Oaxaca, Oaxaca (11 mi. SW Matatlan)
Temp. 89° - 63°. Cloudy all morning. Sun appeared about 1300 + out rest of day. Wind comes up ~ 0700 + is strongest at 1300-1500 then gradually fades out.

LW5016
1963

63

Journal

August 12 - contd.

Up at 0545. I went out to record vocalizations of Aimophila mysticalis while John made breakfast. Recorded until 0700.

Obtained songs of two different ♂♂, but could not get good recordings of the pair chatter. While John went out collecting I tried to find birds (Bridled Sparrows) to watch. Found a pair with one, presumably the ♀, pulling + carrying nest material. During four hours of trying to observe did not see any foraging behavior + was unable to find nest. Habitat is just too dense in herb + shrub layer to watch the birds.

Prepared four Bridled Sparrows John collected, had lunch + went back into field. Sat for 1½ hours in spot where watched Bridled Sparrows in morning. Heard occasional 'tzeet' notes but never saw birds until I 'schussed' one up. Then I missed my shot.

Found family groups of white-lored beastcatchers in the thorn forest (or tropical deciduous) vegetation. Young were full grown, but still with adults. Collected an adult ♂ + a juv. ♀.

Prepared these + back into field again until 1645. Then wrote notes + prepared supper.

About 1845, Bridled Sparrows on hillside had brief song period + heard several pairs chattering. Then were silent.

mysticalis
habitat.

mysticalis
habitat.

LLWoff
1963

Journal

August 13 - 11 mi. sw. Matatlan to Tehuantepec, Oaxaca

Up at 0545. Tried to record songs before breakfast with no luck. After breakfast packed car + started driving toward Tehuantepec looking for areas to collect Bridled Sparrows. Vegetation became more xeric + the herb layer less dense. For a few miles I thought Bridled Sparrows might drop out because of xeric conditions. Then found hillsides above stream had pairs scattered across. Worked up hillside + around hill to Pan Am. Hwy as it circled around + up. Obtained 9 Bridled Sparrows + 1 Rufous-naped Wren. Drove 5 miles down road + found less precipitous area to collect. John obtained a fledgling + I found what may be a nest of Bridled Sparrows. Continued on toward Tehuantepec. S. of El Camaron road winds thru pine oak before dropping down into thorn forest. Found Semichrist Sparrows just south of El Bogueiro. From calls Bridled Sparrows + Semichrist Sparrows overlap ranges about 20 miles - probably more. Arrived in Tehuantepec to find it hot + dry. Fellow in Hotel Tehuantepec said last rain was 5 days ago. Had supper, wrote notes + to bed.

similar to
mythical

LL Wolf
1963

65

Journal

August 14 Tehuacan, Oaxaca, Mexico

Up at 0530. Drove to 3 miles east of town on Pan Am. Hwy. Pulled off to side of road + spent rest of morning in thorn forest vegetation. Then appear to be 4 distinct layers (as there were at 11 mi. SW Matatlan) of vegetation. An emergent layer which is represented by scattered trees. The tree layer canopy which is essentially closed is formed mostly of legumes. Below this are small trees + shrubs. Then the herb layer. During the dry season I think this layer is very sparse, but now it is 2-3 feet tall + very dense. Makes it nearly impossible to watch activities of birds on or near the ground. Except for few trees (apparently of one species) all woody vegetation is foliated at this time of year.

Spent early morning trying to record + determine uses of vocalizations of Semichrist Sparrows. Then spent until 0900 trying to follow ~~birds~~ Semichrist Sp. for observing. Not much luck. By 0730 the wind has become fairly strong + the sun is hot. Most vocal activity has ceased + the birds are difficult to follow in dense vegetation.

From 0900 to 1000 collected to supplement material John had gotten. Found family group of 4-6 Tropical Mockingbirds. Apparently both Seturus

secondary
habitat

LLWoff
1963

66

Journal

August 14

Tehuantepec, Oaxaca

gularis pustulatus have full grown young. Found nest with 5 white eggs which probably belongs to a Groove-billed Ani. Check tomorrow.

Groups of 4-10 Orange-fronted Parakeets flying 40-60 feet above forest canopy. Saw several flights of Boat-tailed Grackles pass overhead. Had several adult ♂♂ leading a group of 10-20 ♀♀ + possibly young. Were giving call which sounded somewhat like the parrots.

Each of us saw a flock of migrant Dickcissels.

Spent afternoon preparing specimens. Then wrote notes. Went into town in evening to see a fiesta. Turned out to be just a dance so came back to hotel + to bed.

August 15

Tehuantepec, Oaxaca, Mexico

Up at 0600. Drove to 5 mi. E. of Tehuantepec + parked by sign "Rancho a **Tempa**". Began recording ♂ Sunichrost Sparrow + discovered that the ♀ was just beginning a nest in small shrub near road. Watched nest-building until 0745. Then out to collect. Flushed bird from nest just above ground. Had to wait for about 1 hour for bird to go back to nest + it was a Sunichrost Sparrow. Nest had 1 egg + 1 young. Collected ♂ at nest area + took nest, shrub, + nest contents.

Sunichrost
nest

LLWOLF
1963

Journal

August 15 Tehuantepec, Oaxaca, Mexico

Left area ~ 1000 by which time it was very hot + windy. Left specimens at Hotel + drove S. of Tehuantepec to coast town of Salina Cruz. Saw Frigate-birds, terns, + Brown Pelicans, + Laughing Gulls in harbor.

Returned to Tehuantepec + spent rest of day preparing specimens. 2nd egg of Sumichrast nest hatched while we were gone so I pickled that young also. But did not get measurements on whole egg.

After supper to bed at 2000.

August 16 Tehuantepec, Oaxaca, Mexico

Up at 0530. Drove out to 3 mi. East of Tehuantepec. Recorded Sumichrast Sparrow vocalizations while John prepared breakfast. Then into field to collect. After obtaining 14 specimens returned to car. John not back so looked for out again to observe. Found group of 3 Amphispiza ruficauda - probably 2 adults + 1st-winter plumaged young. John returned about 1000 with more A. ruficauda. Back to Hotel where spent rest of day preparing specimens. John is now completely over his intestinal trouble, but a friend of ours here has come down with a bad case.

Have been paying for meals as we go + not getting receipts. Averages 40-50 pesos per day.

Wrote notes had supper.

LL Wolf
1963

Journal

August 17 Tehuantepec, Oaxaca, Mexico

Up at 0530. Drove out to 2+ miles east of town + parked along road. John tried to record Aimophila ruficauda, but could only get chatter + call notes. Very sporadic singing. Tried to collect ruficauda here, but this family group is all we could find. Apparently vegetation too dense as A. sumichrasti was common. Drove several hundred yards further + parked in area where Thorn forest has been removed + Acacias + other legumes have come in. Vegetation in this field is much more sparse + walking is easy as tree branches from adjacent legumes do not meet. This seems to be preferred habitat of A. ruficauda + they are spaced out in pairs throughout the area. Spent until 0900 collecting here. Found 2 nests of brood-billed Ani - one with eggs + one with young with feathers just emerging. One nest of Rufous-naped Wren with 4 eggs. Flushed a nightjar - probably Caprimulgus ridgwayi - but was unable to collect it.

Back to Hotel where prepared specimens rest of day. Wrote notes, had supply + to bed.

sumichrasti
ruficauda

ruficauda
habitat.

LL Wolf
1963

Journal

August 18 Tehuantepec, Oaxaca, Mexico

Up at 0530. Drove east for ~~four~~ mile + parked along road. Recorded vocalizations of Sumichrast Sparrow. Then spent rest of morning until 0930 collecting Sumichrast Sp. Obtained 23 + 1 juvenile. Found what is probably nest of Orange-fronted Parakeet. Saw pair fly into tree - they left as I approached. Another pair became calling + would not fly until I was 30 ± ft away. Termitarium just below one bird had hole on one side + near top.

up to near top + then
Could not feel end with
several family groups of
Coatcatcher.



Tunnel curved
back down.
hand. Found
White-lored

Morning was very cloudy + had several light rains. Spent rest of day putting up specimens + writing notes. Still cloudy + 1600, but not completely overcast.

August 19 Tehuantepec to 2 miles east Tapapatepec, Oaxaca

Up at 0530. Drove to open Acacia field 2½ miles east of Tehuantepec. Spent until 0830 collecting, primarily for Aimophila ruficauda. Morning started overcast but cleared as we left. Spent rest of morning preparing specimens. Then packed car + had lunch.

LL Wolf
1963

78

Journal

August 19

Tehuantepec to 2 mi E. Tapanatepec, Oaxaca

Drove east on Pan Am Hwy. Past junction with trans-Isthmus road palm forest becomes common along road. Much of understory is grass + weeds. Then thru legume savannah in vicinity of Niltepec. 12 miles W. of Zanatepec, John collected a Leumplem from a roadside puddle. He reported many empty snail shells around the periphery of puddle. Continued on + climbed slightly around Tapanatepec. 5 miles east drop into river valley. There is a road at Puente Las Minas which is good for camping if the vehicle can traverse the road. It leaves Pan Am. Hwy. about 50 yards east of bridge + goes off to north. We didn't think we could get back out so turned around + drove to 2 mi. east Tapanatepec. Turned south on 2 wheel track road which goes back into farming country. Finally found a place to camp about 2 miles back in where road became impassable.

August 20

2 mi. E. Tapanatepec to Oaxaca, Oaxaca

Up at 0600. Had breakfast + broke camp. Drove east on Pan Am. Hwy. to 4 miles east of Puente Las Minas (9 mi E. Tapanatepec). Parked car along road + collected down bank in deeply shaded + heavily wooded stream gully. Sides are not steep +

LH Wolf
1963

Journal

August 20 2 mi. E. Tapanatepec to Oaxaca, Oaxaca
except for many lianes it is easy walking. There is little ground vegetation. Collected here until 0900. Found several counting Long-tailed Manakins, including a group of 3 adult ♂♂. Skipped in at least 4 adult ♂ Rosita Buntings, plus 1 ♀ + 1 imm. ♂. They have Passerina chip like Indigo Bunting. Also found Thryothorus pleurostictus to be very common in vine jungles + bushy areas.

Drove toward Tapanatepec about 6 miles when prepared birds + had lunch. Then to Tehuantepec to have car serviced (44450.) Early in afternoon so decided to drive on to Oaxaca City to be part way toward Cuernavaca. Arrived Oaxaca at 1800. Discovered had flat tire. Was not able to find place to have tire repaired. Had supper on main plaza downtown. Took room in Hotel Margarita.

August 21 Oaxaca, Oaxaca to Cuernavaca, Morelos

44663 at 0640. - Oaxaca. Drove north from Oaxaca City on Pan Am Hwy. Stopped 2 miles north of Tlaxiaco to try to collect a Dwarf Vireo, no luck. About 2 miles further north we found a flock of 10+ White-throated Swifts circling low over road. Stopped to try to collect one.

LHWolf
1963

Journal

August 21 Oaxaca, Oaxaca to Cuernavaca, Morelos.

Were unable to obtain one. Heard swifts calling from holes in road cut bank + saw two adults fly out. One appeared to drop a fecal sac soon after emerging. Perhaps this is a small nesting colony.

Continued north stopping in Atlix + Izucar de Matamoros, Puebla, for food. Took road from Matamoros to Cuautla, Morelos. Just beyond Chetla where road is unpaved we saw at least 3 Sialia luteola feeding in weeds along road. This area is mostly cut up for farming with some lying fallow + growing up in weeds. Road from Morelos border to Cuernavaca is paved, but spots are full of holes.

Arrived Cuernavaca at 1700 + took room at Villa International.

August 22 Cuernavaca, Morelos to 12 mi. E. Zitacuaro, Michoacan

Up at 0530. Drove out to Canon de Lobos where had breakfast + it was getting light. Spent until 0900 collecting on wooded + shrubby hillsides for Aimophila humeralis. I walked to east along stream + came back up to road in area of open legume shrubs. Found Aimophila ruficauda in this area. As walked back along road to car, A. humeralis became common as vegetation became denser + understory more composed of dicots than grasses.

ruficauda
+ *humeralis*

LL Wolf
1963

73

Journal

August 22 Cuernavaca, Morelos to 12 mi E. Zitacuaro, Michoacan
Drove back to Cuernavaca then headed for Mexico City on old Mex. 95. Just across border into Distrito Federal we stopped at La Lima, km. 43. While I prepared specimens John went out into bunch grass + rock outcrop with scattered pines + found 5+ Servia Madu Sparrows. Collected 2 for Michigan. Then we both finished up the specimens. I went out to try to get a Xenospiza, but was unable to collect either of the two I saw.

Headed for Mexico City. Took cutoff at Villa Obregon to Desierto de los Leones + La Venta. Connects with Mex. 15 to Guadalajara. Drove until 1800 + stopped at Bosquerche Park just before Michoacan border. Had supper + went to bed.

August 23 Zitacuaro, Michoacan to Guadalajara, Jalisco.
Up at 0545 after fitful night - cold + trucks passing on road. Had breakfast as sun came up. Temperature must have been around 40-45°F. Headed west on Mex. 15. Took turnoff to Zimapeuaro which was supposed to be a faster route. It is not as mountainous, but the road becomes almost impassable in places. Probably good during dry season. They are preparing to pave parts of road causing yet more poor road conditions.

LLW&F
1963

Journal

August 23 Zitacuaro, Michoacan to Guadalajara, Jalisco.

botteri
habitat

Found Botteri Sparrows common in pastures + cornfields from Zitacuaro to Morelia. Also Savannah Sparrows were abundant just east of Morelia.

Arrived in Guadalajara at 1530. Took room in Hotel del Parque. Had car serviced + visited market for food for tomorrow.

Had supper + to bed.

August 24 Guadalajara, Jalisco to Los Moches, Sinaloa.

Up at 0530. Drove NW on Mex. 15. Had breakfast on road. Arrived Tepic, Nayarit about 0930. Arrived Mazatlan, Sinaloa at 1400. To Culiacan at 1630. Drove on to Los Moches + took room in Hotel Santa Anita. Have decided to drive to 5-Striped Sparrow locality tomorrow.

Had supper, wrote notes, + to bed.

August 25 Los Moches, Sinaloa to 20 mi E. Mazatlan, Sonora.

Up at 0430. Drove north just across Sonora border + stopped to have breakfast + collect Amphispiza carpalis.

Amphispiza
carpalis

Found several family groups + obtained some juveniles. Also saw family group of 8-10 Gambel Quail. Young about $\frac{3}{4}$ grown. Then drove north to 27 miles south of Ciudad Obregon where stopped for lunch + collected

LL Wolf
1963

Journal

August 25

cont'd.

an adult ♀ + juvenile A. carpalis from same bush.
Noted swallows flying east here. Drove to Herenosillo
for supper + then back just south of town to turn off
to La Colorado. Drove in to km. 114 where camped
for night on small road off to south.

August 26

20 mi. E. Mazatan, Sonora to Tucson, Arizona

Up at 0500. Had breakfast as it was getting light. Hard
to hear Five-striped Sparrows singing as their voice has
little volume + is easily drowned out by Varied Buntings,
Brown Towhees, + others singing nearby. Into field.

Found 2 family groups of Five-stripes. One had 2
adults + at least three young. Also collected a ♀ which
had a hard-shelled egg in oviduct. Macbillorey Warblers,
Black-headed Grosbeaks, + Painted Buntings are common
insects here now. Flushed an adult Yellow-bellied
Cuckoo from nest containing at least three bluish
eggs. Varied Buntings were in family groups with
young essentially full grown.

Collected 13 Amphispiza bilineata including
5 juveniles so decided to prepare birds + leave for
border. Area is very hot + humid + is now so
grown up with vegetation in herb layer that
observing the birds is impossible + collecting

5 stripe
families

5 stripe
families

LLWoff
1963

76

Journal

August 26 20 mi. E. Mazatan, Sonora to Tucson, Arizona - extremely difficult. This was perhaps the greenest & lushest area visited on trip down. Now as other areas show much more green than earlier so this spot has become even more verdant.

Left area about 1200 after a quick lunch. I left a whole change of clothes - including boots - at the camping spot for some Mexican to inherit.

Arrived at border at 1700 & crossed without incident. We were supposed to leave gun permits or present guns to General at Army post at Nogales, Sonora, to show we left country with same guns as we entered. All the commanders had apparently gone home for the day & we were told to return at 0900 tomorrow. Decided to cross & forget guns & permits.

Arrived Tucson at 1900 & drove to 1634 Avenida del Sol for night.

August 27 Tucson, Arizona

Spent day in Tucson helping John prepare to leave. Also checked at University of Arizona hoping Dr. J.T. Marshall was back from Mexico. Back tomorrow.

LLW&F
1963

Journal

August 28 Tucson, Arizona to 20 mi. S. Kramer St., mR. 395
Calif.

Left at 0830 after checking Wilcox Rd. (locality
for Cassini's Sparrows). Could find none. Did
find a family group - 2 ad. + 1 juv. - of Rufous-winged
Sparrows. As expected they must have started breeding
soon after we left Tucson in mid-July.

Drove to Phoenix + then east on R60-70.

Turned north at San Bernardino, Calif. + took
R 395 toward R466. Stopped for night on road
leading off R 395 to east. To bed after writing journal.

(Carpalis
family.)

LLWolf

1963

Journal

Dec. 14

Berkeley, Calif. to ~~San Diego~~ ~~San Bernardino~~ ~~Palmdale~~, Calif.
mileage at Berkeley 48568.0 picked up Anthon

Gardarsson at 0800. Then Jan Salcin + roommates,
then Richard Root at 0830. Drove across Bay Bridge
+ to San Francisco Airport. Dropped Jan +

roommates at airport at 0925. Drove south on 101
to Gilroy where turned east on 152. Around
Los Banos noted several flocks of Starlings.

Also mixed flocks of Bicolored Redwings + Brewer's
Blackbirds. Going thru Pacheco Pass climb up
thru oak parkland, oak woodland + chaparral.
Along stream have sycamores + willows. Sycamores

still holding onto dead leaves. Continued on to R 99.

Down 99 to Babersfield + took 466 across Tehachapi
Pass. Road crews working on widening the road.

Held up for 25 minutes. Had supper in Mojave.

Drove on 466 to Rosamond. Got some lunch +

on R. 398. To San Bernardino, then east via 70 + 99

to 111. Then Palm Springs where stopped for

cup of hot chocolate. On to Palm Desert where
turned ^{right} on Fortale Rd. (near bridge of canyon).

Go out Fortale Rd thru desert where take
dirt road saying "to stables." Go past Palm Desert
Museum + turn left on next road. Good place
to camp in wash. To bed at 1030 PM.

Reports on radio gave lowest temperatures anticipated

LLWOLF
1963

Journal

Dec. 14 in the area at 25-29°.

Set several mammal traps around base of Larrea.
Baited with orange meal.

Dec. 15 ^{49/42.0} Palm Desert, Calif. to 1 mi. W. Juma, Imperial Co., Calif.
Up at 0645 after cool, but not uncomfortable night.
Small number of mosquitos buzzed and bit during night. Temperature probably about to 32°F.

Sun just coming up when arose. Finally lighted ~~eastern~~ ^{western} valley floor by 0700. Heard no birds when first up. Then Phainopepla began calling along with Verdins. Appeared that Phainopepla ~~does~~ were found singly + perhaps maintain winter territories. Noted one ♀ hummingbird - species? - buzzing from exposed perches on shrubs. House Finches common, Bewick Wren - several.

Area is alluvial desert wash - vegetation dominated by Larrea + Palo Verde, + catalpa.

Broke camp + left area at 0730.

~~Palo Verde~~ Larrea + several species of herb. Strombos. One looked like an Onocleas. Right around Palm Desert much of the tan sand was covered with purple blooms of creeping ground herb.

Drove south on 99 to Lindero's Service Station which is at entrance to Salton Sea National Wildlife Refuge. Drove back to refuge boundary. Found

LLWoff

1963

Journal

Dec. 15 several cars of hunters parked just at boundary waiting for wild fowl. We walked along road to headquarters about 100 yards. Saw coots, Ruddy Duck, Long-billed Marsh Wren, Orange-crowned Warbler, Song sparrow, Parula, Canada Goose - several flocks, 3 Widgeon, + 3000+ Snow Geese; one Whistling Swan + 6-8 Ross' Geese (Anthon).

Continued on south to R. 80. Turned east + drove thru hama desert, sand dunes to Yuma, Arizona. Along river just north of Indian mission + territorial prison on California side of Colorado River, we found spot visited last January. Lott took Sungit samples from scrubbean + arrowweed. Anthon + I birded in scrubbean.

Back into Yuma for lunch + groceries. Then back to study area. Lott tried to find Gnatcatchers. No luck. Birds are silent. Noted flocks of Redwings going to roost in Typha across river.

Had supper + back to town - To bed at 2230

Dec. 16 (mi. N. ^{Yuma} Imperial Co., Calif. to Tucson, Pima Co., Arizona)
Up at 0600. Had breakfast in cold morning air. Water in can had scum of ice. Could hear no Gnatcatchers (blue-gray) calling. Bird activity did not really begin until about 0700 - 0730 as air

LHW618
1963

Journal

Dec. 16

warmed up. I tried to find a calling Cintractatus to record before the wind came up. Could find none in the immediate area. When Root finished his observations we both tried to collect out the population of Cintractatus for stomach analyses. Until 11:30 we managed to collect only 4 plus one Verdin. Do not seem to be as many as were here last winter.

While Root + I collected birds, Brother put up mammals which he trapped in scruboak, Saguaro + rock habitat during night. — 5 Peromyscus, 1 Perognathus, + 1 rat.

Packed car + left for Tucson on R.R. Had lunch in Tucson. Arrived in Tucson at 17:45. Drove to 1025 Euclid where stay for several days. Found Jim Ambrose, John Trammontano + several others at home. Said hello + then out for supper. Back at 19:00 to clean up + write notes.

Dec. 17

Tucson, Pima Co., Arizona.

Up at 08:00. Night was cold here, but not down to freezing. After breakfast went out to Wilcox Rd. locality (O. Gai. N. Benson Hwy.) to see what birds were there. The only species present in any numbers was the Rufous-winged Sparrow. No Brewers Sparrows present at all + wh-crowns only in ~~few~~ small flock.

LL Wolf
1963

Journal

Dec. 17 In general birds seemed to be much less numerous than in January, 1963. John Trueman - graduate student in Zoology at Univ. Arizona - says there has been a recent cold snap in Tucson. This may account for small numbers of species + individuals. Also may be partly because we arrived rather late in morning.

Watched the small flocks of Rufous-winged until early afternoon. Spent a little time collecting + then back to Univ. of Ariz. to prepare specimens. Back to "Salmar House" for supper.

Dec. 18 Tucson, Pima Co., Arizona

Up at 0530. Drove out to Wilcox Rd. locality. Arrived about 0700. Weather cool - prob. abt. 32°F. at night. + wind comes up soon after sunrise. Arthur + I picked up the snap-traps we set in cholla-mesquite area. Caught Neotoma albigula, Diadonys sp., + Littellus harrisi.

Spent rest of morning until 0900 trying to collect sparrows + a Green-tailed Towhee. Discovered a mixed flock of Vesper, Brewer, Wt.-crowned Sparrows mostly feeding in the mesquite-grassland. Especially Vesper + Brewer flocking together. The Rufous-winged Sparrows seemed still to form intraspecific flocks. The few individuals encountered in mixed flocks may have been there fortuitously and was chasing the flock.

L. Wolf
1963

Journal

Dec. 18

Came back to Tucson to prepare specimens.
At 1330 started drive up Mt. Lemmon Hwy in Santa Catalina Mts. Stopped in Molino Basin + found the area very quiet. Continued up thru oaks to pine-oak + finally to conifers. There snow on ground. On to Mt. Lemmon Lodge. Back to Tucson at sunset. Drive takes about 1 hour unless stops are made.

Dec. 19

Tucson, Pima Co., Arizona

Up at 0630. Drove to canyon 2 mi S. Molino Basin + into ground. Spent until 10 AM following Aimophila ruficeps around on the rocky, oak + juniper hillsides below the highway. There's some water in the stream, but it is not running. Found a mixed flock of sparrows - lincolns, black-chinns, white-crowns, + mostly chipping working along thru the shrubs + oaks along the stream. Also red-wings + ruby-crowned kinglets. When closely followed the flock would move up onto the hillsides but more commonly stayed near the stream bottom. At several points A. ruficeps pairs - meaning two birds - joined the flock.

Collected 3 A. ruficeps, 1 Spizula socialis, + 1 Zonotrichia leucophrys.

LLWoff
1963

Journal

Dec. 19 Followed the flock for about $\frac{1}{2}$ mile along the stream then I left it.

Back to Tucson to prepare specimens. Also measured skeletons of Himantopus + Plagiodipiza in collection here.

Dec. 20 Tucson, Pima Co., Arizona

Up at 0615. Stopped for breakfast on way to Molino Basin. Starting to get light while we ate. Turned to right down to stream where road goes off to Molino Basin Picnic Ground. Walked along streamside then uphill. Flocks of Robins + Arizona Jays flying between trees on hillside. Robins also into Manzanita - not seen to feed.

Found ~~2~~ group of 4-5 Rufous-crowned Sparrows among rocky outcrop on grassy - scattered Emory Oak - hillside. These birds seemed to be associated in a group and may have been a family group - took 2 first year birds + 1 adult. Once flushed one bird which flew downhill to another rock outcrop. A second bird slightly further downhill then flew downhill to join 1st bird at the outcrop. These may have been a pair as the bird collected was an adult ♀ which had gone thru a breeding season - tell by condition of ovary.

LLWoff

1963

Journal

Dec. 20 One interesting item is the occurrence of at least six species of Picidae within 500 yards of each other (see species lists). The species seemed to be sharing foraging sites to a great extent - this would be interesting to study from an ecological view.

Again flock of Chipping Sparrows with small numbers of Black-chinned Sparrows, Ruby-crowned Kinglets, + Oregon Junco moved through oaks + on ground.

Drove back to ~~Abel~~ Jabino ~~the~~ Canyon to help Dick Root record Ptiliophila. Found both melanura + caerulea foraging together with no interspecific aggression. Both species were apparently paired. Once heard series of melanura calls + saw two individuals in the 10 foot Palo Verde. From actions - partly hidden by branches - it appeared to Root + I that there was an attempted or successful mounting of one by the other. Noted that melanura forages from ground to tops of 10-20 foot Palo Verde. Also in Franseria. Seemed to spend more time on ground than did caerulea, although caerulea did forage on ground.

Caerulea tended to call at irregular intervals generally one or only a few calls during our visit.

LL Wolf
1963

Journal

Dec. 20 ~~Melanerpes~~ called less frequently, but seemed to call longer during a bout. Also had several bouts with extended, several note, call.

Returned to Tucson + prepared specimens.

Dec. 21 Tucson, Arizona to Altadena, California.

Spent morning along Santa Cruz River in San Xavier Indian Reservation to south of Tucson. Flocks of sparrows, mostly White-crown, were throughout the mesquite areas. Desert Sparrows + Brewers Sparrows seen at edge of mesquite + cholla areas. Here much less brush cover, especially grass, + habitat much more open.

Saw one Ash-throated Flycatcher (+ heard) in some large Populus along river. At a vertical cut bank which had exposed roots in the bare soil we watched a Rock Wren + Canyon Wren foraging. Both seem to forage in about the same manner, but Canyon Wren perhaps spends more time in root tangles + Rock Wren more time on open, bare ground. Canyon Wren giving call note at irregular, but frequent, intervals. Rock Wren silent during most of one hour observation. Did not seem that either bird was reacting to presence of other except when foraging paths came close. Once Canyon Wren supplanted the Rock Wren

LCWaf
1963

Journal

Dec. 21. From top of boulder jutting out at base of cut.
Back to Tucson + leave for Berkeley. Drove
as far as Altadena where stayed for the night.

Dec. 22 Altadena to Berkeley, California.

Left Altadena about 0845 + arrived Berkeley
at 1645. Trip uneventful except for haze + fog
in central valley.

LLWOLF
1964

Journal

June 11 Berkeley, California to 10 mi. N. San Bernadino, Calif.
54451.0 12:15 P.M. Left Berkeley with Dick Sage.

54658.0 - Selma, Calif. 1630 Bought gas

Drove on Nimitz Frewy to Hwy 50. 50 to 33 east of Tracy. Took 33 to 132 which connects with R. 99 in Modesto. Turned south on 99. Took 466E at Bakersfield. Stopped on east edge of town to buy groceries.

Thru Tehacapis - construction about 10 miles long. Partly paved on N side of road so should be finished fairly soon. Stopped for supper at 1915 at 54792.5. Can see scattered oaks + probably conifers in the distance, but most of area is overgrazed + nearly bare.

Stopped for night just off R. 395 about 10 miles N. of San Bernadino - 2215. 54918.5

June 12 10 mi. N. San Bernadino, Calif. to Tucson, Arizona. Up at 0530 after cool night - everything damp from condensation. Chorus of Mockingbirds + Brown Towhees. Mockingbird sitting in dead limb in top of Populus - calling incessantly occasionally flutter up 3-4 feet + drop back to limbs + flash wings as regaining perch.

LHW:f
1964

Journal

June 12 10 mi. N. San Bernardino to Tucson, Ariz.

Stopped for breakfast at 3 mi. E. + 2 mi. S Cadiz, Calif. Turn right (S) at Chevron Sta. Then left past 3 more places where one might turn - now on dirt road then angle to left + follow to base of mt. at grove of Sycamores. Larrea - 7-10 feet tall with grass understory, scattered cholla. In some flowering shrubs 6-8 ♂♂ Costa Hummingbirds were stationed watched chases of up to 3 individuals (not seeing all chases involved ♂♂), also much vocalizing - high, thin whistle. Saw Scott Oriole fly by; heard Bewick Wren, Ash-thr. Flycatcher + Rock Wren calling. Left + back to Cadiz for gas at 0800. Then drove east crossing Arizona border at 1100.

Drove on 60 + 70 to Phoenix. Took 80 + 89 east + south to Tucson. Arrived Tucson at 1715. Temperature 94°F, + humidity 5%. 15% in Phoenix. Drove to Saguaro House, found John Trueman is here for summer. We will sleep here for night + probably for Sat night also.

Yucca blooming north of Tucson + at various places along road. Joshua Trees east of Cadiz apparently just about there blooming.

Had supper + talked to Will Russell + Bob Kick left - students of MacArthur at Pennsylvania.

To bed at 2200

LWolt

1964

Journal

June 13

Tucson, Pima Co., Arizona

Up at 0530. Drove out to Wilcox Rd. to look for Rufous-winged Sparrows. Had breakfast after touring three mesquite areas where birds were common in recent years. Found that cattle were grazing the area & had eliminated most of the grass. Only ground layer vegetation was a composite mostly dried. Mesquite losing leaves; hackberries partly defoliated. Could find only one pair of A. carpalis on this side of road. Did find group of 3 young Verdins.

Walked thru west side of road looking for birds. Area is really dry. Found 4 pairs of Amphispiza carpalis in this area. Mourning Doves flying about commonly. Watched 1 adult feeding 3 or 4 young Verdins. Except for a Mourning Dove nest found no other evidence of breeding - do know that Curve-billed Thrashers & Cactus Wrens have well grown, independent young.

Back to car at 0900 & drove back to Tucson. Bought groceries & took car to have it greased & oil changed. Visited Zoology Dept. of Univ. of Arizona.

Had supper & went out to Mt. Lemmon Rd. to study areas of Bob Ricklefs. Following nestlings growth & weight changes.

Saw several isolated or Purple Martins plus nests with eggs and/or small young of Curve-billed

young
H. carpalis

LL Wolf
1964

Journal

June 13

Tucson Pima Co., Arizona - 2500 feet.

Thrashers, Cactus Wrens + in Roadrunner - not bushy like Thrashers but larger - not supported beneath by cholla branches.

Caught Phrynosoma solare at base of mesquite. Went down hole at base. - tail not in hole. Pulled out by tail + noted that one eye at least was bloody + blood on top of head. Unfortunately did not see it start to come from eye.

Back to Tucson at ~~20~~ 2030. Wrote notes + to bed.

June 14

Tucson Pima Co., Arizona

Up at 0520. Drove out to Molino Basin in oak zone on Santa Catalina Mts. Area is cut by stream along which ~~are~~ is riparian vegetation of oak + sycamore. Also large areas of Rubus + other brush. Saw several Rock Wrens, groups of lesser Goldfinches + heard Belt Vireo, Ash-throated Flycatcher. Area is rocky hillsides with grass, small agave-type plants, + various perennials + shrubs, + scattered oaks.

Spent most of time from 0600 to 0700 recording vocalizations of a single ♂ Rufous-crowned Sparrow. Did not see another with him. Not sure if mated.

Drove on to Molino Basin long ground where I went up hillsides to grass-agave-oak association.

up
hill

LLWoff
1964

Journal

5

June 14

Tucson, Pima Co., Arizona

Dick mostly hunted in oaks + brush along stream thru camp ground. I found several pairs of Rufous-crowns, three Cactus Wrens, several small groups of Mexican Jays, a pair of Blue-gray Gnatcatchers.

Met at the car + drove back to Tucson. Put up birds until 1400 - Dick until 1600. His first two birds were a Mexican Jay + Crissal Thrasher. Thrasher took about 2 1/2 hrs, but came out very well.

Bought a few more groceries. Then had supper. Packed car in cool of evening preparatory to leaving for Texas tomorrow.

Let the Phrynosoma out of the bag today + found dry, solid pellet (> 1" long + 1/2" wide) composed entirely of ant bodies - apparently fecal material is voided very dry.

June 15

Tucson, Pima Co., Arizona to 8 mi. E. Davis Mt. Jct. Jeff Davis Co., Texas

Up at 0630. Had breakfast in Tucson with fellows we have been staying with. Finally ^{left} Tucson at 0820 (55509). Drove east on Hwy 80. 40 mi. E. (55548) there was a nice yucca grassland, but overgrazed. Another 10 miles E. (55559) we went thru a mesquite grassland. 15 miles farther east saw 6 Turkey Vultures apparently following a small ridge thru Larrea + Prosopis country. Just east of Texas Canyon. 75 mi. E of Tucson watched

LLWof
1964

Journal

June 15 Tucson, Arizona to San E Davis Mtn. Jct.
a ~~♂~~ ^{lit} Marsh Hawk fly across road carrying something in
beak. ~~lit~~ in mesquite in grassy area bordering a
harrow-dominated region.

Between Willcox + Bowie, Arizona turned down
E on R. 16. Passed thru San Simon + then crossed
over into New Mexico. 3 miles ^W of Lordsburg there
was a beautiful harrow-dominated region - almost
pure harrow.

Stopped for gas in Lordsburg, New Mexico. Couldn't get
car started for 10+ minutes so took it to another station.
Apparently is the solenoid in starter. Since at noon
had to wait until 1 PM for parts store to open. Had
lunch in gas station + waited. Left Lordsburg at 1345
with a new solenoid (\$13.14). Drove across New Mexico -
yucca-grassland + mesquite + creosote reaching El Paso,
Texas at 1700. Stopped for supper at 1900 100 miles
SE of El Paso. Again have been in mesquite + yucca-
grassland + creosote. Yucca is several different species -
some with flowering stalk coming out at ground level,
Others up to 7 to 8 feet above ground.

Drove on + crossed into Central Time at ~~2030~~ 2030 CST.
Stopped at ~~2130~~ ²¹³⁰ CST at 56004.

Had Poor-wills calling from hillsides around
camp.

LC Wolf
1964

Journal

June 16 8 mi. E. Davis Mtn. Jct. to 12 mi. SE Palestine, Anderson Co., Texas

Elevation 3850 ft. mileage 5600K.

Up at 0530. I went out to hunt for Cassin Sparrows while Dick made breakfast. Found 2; missed both + returned to camp at 0630.

Area is juniper, mesquite, grass, + assorted thorny shrubs. On sloping upper ground there are junipers + ~~mesquite~~ Palmaria type shrubs. Grasses + herbs scattered (leaving large % of ground bare. Near highway is low part + water collects here. Here are 5-10 foot legume shrubs + grass. Between them 2 vegetation types is grass with scattered 2-4 foot legume shrubs.

Left for eastern Texas at 0715. Bought gas at Davis Mtn. Jct. then turned SE on R. 290 for San Angelo.

As we drove east in Texas the country became greener. Just east of Waco on R. 84 we hit our first rain. Stayed in Waco where we bought groceries for supper. Drove east from Waco on R. 84.

Had supper from 1830 - 1915 at roadside park east of Waco. Heard Blue Jay, Yellow-billed Cuckoo, Chickadee, Cardinal, Mockingbird, Chimney Swift.

Drove on to 12 mi. E. Palestine (2 mi. E. Elkhart) where pitched tent + spent night. To bed at 2130 after miserable ride thru construction area W of Palestine. After rains road was a sea of mud. Heard on radio that a small town near Waco had 14 1/2 inches of rain on Monday.

some
sparrows
+ habitat

L. Wolf
1964

Journal

June 17 12 mi. SE. Palestine, Anderson Co., to Boykin Springs, Jasper Co., Texas
Up at 0530. Packed car. Gear damp from humidity. Drove
on R. 287 to Crockett. Turned east on R. 7 to Ratcliff
Lake Recreation Center. Had breakfast in midst of rain. While
Dick wrote a few notes in the miserable weather I walked along
road looking for birds. Found Black + White + Hooded Warbler,
Summer Tanager, Crested Flycatcher, Red-eyed + Wh.-eyed Vireo,
Blue Jay, Cardinal, Red-bellied Woodpecker, Carolina
Chickadee, Chimney Swift, E. Wood Pewee, Tufted Titmouse.

Drove into Ratcliff, but no pay phone so drove back 3
mi. E to Kennard + called Edgar Kincaid in Austin, Texas.
He told us to go on to Angelina National Forest to find
possible Pine-woods Sparrows. We drove on R. 103 into
Lufkin where on Business 69 on east edge of town is
National Forest Headquarters. Stopped in to talk with a
ranger to tell him our plans + ask for possible locales
for Amphispiza aestivalis. He directed us to Boykin Springs
in Angelina. Drove SE on R. 69 to Zavalla where took
R. 63 to SE. to Boykin Springs turnoff. Stopped once on
way in to Springs to check open pine hillside for sparrows.
No luck. At Boykin Springs pitched camp after short downpour
+ then had lunch.

Decided to try some more exploring in pine habitat
around park. Drove to first dirt road to east + parked
about 1/2 mile down road. Soon after entering woods
of a long-leaved pine found pair of Pine-woods.

LL Wolf
1964

Journal

June 17 12 mi. SE Palestine, Anderson Co. to Boykin Springs, Jasper Co., Texas
 ♂ was singing at 1400. Followed this pair for about 10 minutes & then they disappeared. Collected a Pine Warbler just after it flew up from ground to where it flew chasing a bug it had dislodged in foraging thru middle clumps at end of pines. Found Dick & we walked together toward a swampy woods. I chased a Hooded Warbler while he tried to get a Titmouse (Tufted). Then back to car seeing several Ammodramas ahead of us. Chased one down a hole. They can move amazingly fast (faster than we could run) thru woods.

Back to camp at 1630. Went for short swim. I then prepared birds (3) while Dick made supper. After supper wrote notes & then to bed at 2000.

June 18 Boykin Springs (Angelina Nat'l. Forest), Jasper Co., Texas

Up at 0500. After quick breakfast drove to 1 mi. S. of Springs to road going off to west. I walked into woods to look for Pine-woods Sparrows while Dick continued on down road to collect. Not until 0630 did ♂ Sparrow finally begin singing. Chased ~~them~~ ^{him} around for about 2 hours. Finally saw ♀ but then lost her immediately as I was still trying to get recordings of the song. Located pair together & female seemed to be carrying food. Dropped into grass. After seeing her with food again tried to find nest - unsuccessful. While looking she came in a third time. Neither of the last two times did she go to the nest.

nest was
singing
stand

LL Wolf

1964

10

Journal

June 18

Boykin Springs, Jasper Co., Texas

Dick picked me up at 1030 & we returned to camp. Spent until 1600 preparing 12 birds Dick collected; took him out for lunch. Then back to 3 miles S. of camp where road goes off to E. Mostly open pine woods but in damp places deciduous trees - especially oaks & sycamores - become most common. Spent $\frac{3}{4}$ hour in deciduous growth where I collected 2 Red-eyed Vireos & a Red-bellied Woodpecker. Also "scurried" in Tufted Titmouse, Chickadee, Bewick Wren, Crested Flycatcher, Cardinal & Downy Woodpecker. Back to camp & went swimming for about 10 minutes & got more water. Then had supper, wrote some notes (not journal) & went to bed at 2010.

June 19

Boykin Springs, Jasper Co., Texas

Up at 0445. Dawn chorus already in progress - probably what woke me up. Had a quick breakfast & then out to watch Pine-woods Sparrows while Dick tries to collect. He took me to a place where he thought he heard aestivales yesterday. Turned out to be some sort of hunting. Went back to "nest" area of yesterday which is closer to main road on same road that Dick hunts along. Waited until 0730 for birds to appear - no luck. Heard ♂ singing several times. Moved to look for them & found ♀ nest-building. Spent rest of morning until 1030 there. Dick picked me up & we drove back to camp & prepared birds until 1600.

LLW01F
1964

Journal

June 19

Boykin Springs, Jasper Co., Texas

Took time out for lunch. By 6000 the wind is strong enough to sway pines back & forth. This afternoon the gusts were not quite as strong as yesterday when sand dust continually blew away. In morning & thru afternoon clouds are continually blowing in from SE, they repeated shadows the sun & with the breeze it is very pleasant. Bugs are not bad except for a few little gnats.

After skinning caught up on notes & packed some specimens away. Went for short swim & got 5 gallons of water. Back to camp where made supper. Then wrote notes.

Tonight there are only a few wispy clouds, but the breeze is still blowing.

First heard the Chimney Swifts at 1840.

First Common Nighthawks at 1902.

June 20

Boykin Springs, Jasper Co., Texas

Up at 0500. To field after short breakfast. Drove off to collect while I back to Pine-woods Sparrows. Returned to nest started yesterday - no change & no activity. Found ♀ building another nest 100 yards to SW. Watched this pair until 1030. Discovered there is another ♂ across the road. Counter singing between ♂ & ♂.

Back to camp to prepare birds & have lunch. About 1545 went back out to survey area more. Found Pine-woods Sparrows along pine-clad hillside where looked on way

LLWOLF
1964

Journal

June 20 Boykin Springs, Jasper Co., Texas

into park. Found nest + collected ♂, ♀ + fledgling. Back to camp + off for short swim. Then back to prepare specimens. Had supper, wrote notes, + to bed at 2000.

First heard Common Nighthawk at 1857.

Minimum temp - ~~8~~ 72°F. at 0500

Max temp, - 94°F.

June 21 Boykin Springs, Jasper Co., Texas

Up at 0500. Temp. min at 69°F. Had a quick breakfast + then into field. I went back to watch Pine-woods Sparrows to get more data on nest-building. Dick was to take tape recorder + drive around trying to find singing Pine-woods Sparrows. I had no luck with #1 pair + finally went to look at nest. Found it apparently completed. Did not see ♀. Heard another ♂ singing so over to try to map its territory. Soon found (flushed) a very excited ♀. Spent until 1030 following this pair around. Finally located a fledgling in under a shrub. Caught this bird + parents stayed for slightly less than 2 hours when Dick returned. He + I managed to get both parents.

Back to camp for lunch + prepare specimens. Dick went for quick swim while I finished birds. Went back out to see where Dick had been in morning. Turn to E (right) on R63 toward Jasper then left at first dirt road. When

LL Wolf
1964

Journal

June 21 Boykin Springs, Jasper Co., Texas.

came to another paved road after passing thru mixed pines and oaks, some good stands of oaks, + good pine stands then turn right to first road to left (dirt). Fence across road. Parked + walked back into area of 50-75 foot pine (longleaf) with scattered oaks - understory of scattered shrubs, nearly continuous layer of grass, + pine needles. Here he encountered a group of 5 Red-cockaded Woodpeckers. Managed finally to collect a young ♀ after long chase. Back near car found a pair of Pine-woods Sparrows. Shot both, but could only find one. Also found nest which he showed me. He also found fledgling on 2nd trip - probably from nest. Also checked nest we found yesterday 1 1/2 mi. S. Boykin Springs along road from springs to R. 63.

Returned to camp + went swimming for short time + fixed lanterns. Back to camp where prepared Summer Tanagers. Dick got in oaks + the fledgling P.-w. Sparrow. I made supper + wrote notes which Dick cleaned up around camp a bit.

Max. temp. today 94°F. (shade).
To bed at 2000.

what
H. aestivus

L L Wolf
1964

19

Journal

June 22 Boykin Springs, Jasper Co., Texas

Up at 0500. After quick breakfast drove SE from camp along fire road. Stopped just across a cattle guard + played tape

habitat

/ recorder in area of relatively open 50-75 foot long leaf pines.

Spawning

Soon had ♂ Pine-woods Sparrow within gun range + collected

him. Another had started singing ~ 200 yards to S 50 over there with recorder. Unable to collect this bird. Newton

+ turned to N (left) on dirt road toward main paved road into camp. Stopped + checked nest (1 egg) I watched ♀ building.

Then out to main road + turned right (toward R. 63) for ~ 1/2 mi.

Here have nest with young. Spent until 1045 in this area hoping to get feeding rate data. Birds very wary + approached nest on ground. Could judge when young were fed only by begging notes of young. Both parents fed.

Back to camp for lunch + to prepare birds. Maintenance man for campground came by + told us that the elevation was ~ 2500 feet. Also that longleaf pines were planted by government during 1930's. Finished birds at 1430. Wrote notes + plan to wash car.

habitat

Min temp. - 70°F.

Max temp. 94°F. - ~ 1200

After washed car I walked back to Lari.S. to check A. aestivalis nest while Dick worked on his insects + lizards. Found nest unchanged. Four Killdeer were at edge of gravel pit near nest area. Probably a family group. Then down for short swim, collect lizards, + obtain 5 gallons of water.

Ate supper, wrote notes + to bed by 2000.

LL Wolf
1964

Journal

June 23 Boykin Springs, Jasper Co., Texas

Up at 0450. After quick breakfast into field, first stopped to check nest with egg. Still only one egg (Aimophila aestivalis). Then went over to open pine-clad hillside to watch at nest with four young. Dick going back to other open pine areas to try to collect Pine-woods Sparrows. Spent until 1045 here with only short break when Dick came to report that he lost aux in mad dash after a Red-cockaded W. pecker. While he went back to successfully hunt for that I stayed on to obtain more data on feeding rates. Birds seemed still disturbed by my presence, but not nearly as yesterday. Today's rates are probably much closer to normal. On way back to camp stopped several times to play tape recorder & try to lure male aestivalis in. Were successful twice but only managed to collect one. Also saw another ♀-plumaged Red-cockaded Woodpecker near top of 75 foot pine. One of ♂ aestivalis collected probably has a territory adjacent to pair with nest + 1 egg - making 7 pair + may account for some of singing to N of territory which I attributed to ♂ #1 being a long way off. Hard to tell for sure.

Back out at 1530 to collect more aestivalis. Recorder ran out of power after we had one ♂. Went to nest with young. Collected 2 ♀♀ + 3 of the young. Probably killed the ♂ + other young escaped.

Back to camp for short swim, prepared specimens, had supper, finished notes + prepared to leave for south Texas in the morning.

LL Wolf
1964

Journal

June 24 Boykin Springs, Jasper Co., to Sinton, San Patricio Co., Texas

left at 0730
56841. Up at 0600. Had breakfast + packed car for trip south.
Went down to lake + took a bath. Drove out via Pine-woods
Sparrow nest to check number + size of eggs. ♀ incubating.

General area summary: sandy soil, rolling country with no large hills. Mostly long leaf pines - few scotch pine type with scattered deciduous trees - oaks, sycamores. It seems that given years of fire protection that the country will be in deciduous forest. We noted mostly deciduous forests with scattered pines in dunes thru northern end of Big Thicket area as went SW from Jasper. Took R. 63 to Jasper where turned to SW to Livingston. Turned S on R. 59 to Houston. Stopped on S. edge of Houston at large shopping center to get groceries, extra key for car + assorted hardware goods. Continued on out of town where stopped for lunch of watermelon. Had tire fixed in Wharton. At Victoria country is getting drier + more mesquite grassland. Took like rain + actually got a few drops. Turned farther S. on R. 77 to Sinton. Stopped just N. of Sinton to cook steak for supper. Then on into town. Called Wilder Wildlife Foundation but unable to reach Dr. Cottam. Called his home + talked to Mrs. Cottam. She was unable to help us. Finally called Mr. Glazener, asst. director, who told us to check in with Dr. Cottam in the morning.

Had car greased + oil changed.

Wrote notes + to bed at ~~20~~ 2030 after glass of beer.

LL Wolf
1964

Journal

June 25 Sinton, San Patricio Co., Texas.

Spent last night under shelter at partly completed roadside shelter 12 mi. NE Sinton. Had rain in early evening + got very little sleep. Quit raining but cars on highway kept us awake. Finally up at 0600. Had good breakfast while Dick collected three birds. Then both back into field. I spent until 0915 chasing Cassin's Sparrows thru open mesquite, hackberry grassland. Some ♂♂ were up in flight songs. Also full grown juveniles. Then until 1200 preparing specimens. Had lunch + drove back into Sinton. Passed Wilder Wildlife Foundation entrance on way into town. Gate locked. Called to office of Foundation from town + they had someone meet us at gate. Dr. Clarence Cottam, the director, spent most of the afternoon showing us around much of the 7800 acres. They have tagging programs on deer + turkeys with many marked individuals.

Had a terrific rainstorm as we came into area - 1.17 inches recorded at Headquarters building. Dr. Cottam said the area has had little rain in past three years - all the "permanent" lakes on the property are essentially dry.

Saw many areas that looked favorable for Cassin's Sparrows + heard many singing ♂♂. They seem to range from low mesquite in open country to rather dense 20 to 25 foot mesquite areas. Dr. Cottam says they occur in some very dense stuff. Also apparently small numbers winter here, but most migrate out.

LHWolf
1964

Journal

June 25 Simton, Texas San Patricio Co.

Stopped raining at 1600. We came back to headquarters + got fixed up with a room to stay in. Had supper + met several people working here - Pr. Wm. Thompson, Bob Lailors, + Erich Bolen.

Spent a short time in the library checking literature, then to bed.

June 26 Welder Wildlife Foundation, San Patricio Co., Texas

Up at 0500. After breakfast Dick drove me down to near Lagarto windmill where I spent until 1030 trying to record + observe Cassin's Sparrows - (sec. 40, lots 2 + 6). The area is open mesquite grassland with mesquite up to 10-12 feet tall but average of tall plants in 6-8 feet. Many clumps of mesquite only 1-2 feet tall, perhaps kept down by grazing. Also Opuntia cactus + a stem-branching cactus. Grass is up to 12-15" tall around mesquite clumps + cactus where protected from grazing by deer + cattle. Other 6-8" tall + rather sparse. Distance between taller mesquites $\bar{x} = 20-30'$. This makes it an open, low-cover area really ideal for watching these birds, especially since $\sigma\sigma$ have a flight song. Hard to follow individuals as they do not allow close approach. Did spend several hours watching pair feeding young with ~~the~~ $\frac{3}{4}$ grown tail.

Unable to get many recordings as $\sigma\sigma$ do not allow close approach + wind becomes too strong for recording by 0730.

LLWof
1964

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Journal

June 26 Welder Wildlife Foundation, San Patricio Co., Texas

Dick drove back to area where we collected yesterday to try to get some specimens. Then he drove into town to buy groceries. Back to pick me up at 0945. I decided to stay longer & walked ~~by~~ back. Back by 1145. He had already started to prepare specimens so we worked until 1300. Had lunch & back to finish skinning. Then I went back to watch sparrows (1530) while Dick washed clothes & made supper.

I worked on ♂ across road (lot 2) from where worked in morning. Got a little more confused & some advance on understanding. Part of difficulty probably lie in the presence of full grown young still with the adults. Hard to (impossible) recognize these individuals in the field, so some mixed behavior may be between young & adult.

Wrote notes until 1830 when had supper. Dick also finished notes & to bed at 2030.

June 27 Welder Wildlife Foundation, San Patricio Co., Texas

Up at 0445. Had breakfast during slight rain. ~~Stand~~ ^{Stopped} ~~up~~ by time ready to leave, but was cloudy all day with thunder & lightening to east. I went out to where watched Cassin's Sparrows yesterday. Hoped to be able to record in terr. #1. ♂ not singing & unable to find either member of pair. Did get some recordings but spent most of morning until 1030 walking thru sec 40 lot 2 looking for nesting Cassin Sp.

LLWOLF
1964

20

Journal

June 27 Welder Wildlife Foundation, San Patricio Co., Texas

Found several more groups with adults caring for young nearly or fully grown. Several times a group I was following seemed to merge with family of Lark Sparrows.

Found nest of Painted Bunting - 2 up in hackberry, suspended like a vine nest. at least 2 young about 1 week old. flight feathers partly grown, but few or no feathers on back. ♀ carried fecal sac 100+ yds from nest + food back that far while I watched. Watched another 1st yr. ♂ Painted Bunting singing from top of mesquite + phone line close family of Lark Sparrows that moved thru area just beneath him.

Dick went out to collect in riparian situation along Arkansas River on R. 77. Came in with 4 Painted Buntings, 2 White-eyed Vireos, 1 Golden-fronted Woodpecker (from farther along road), + a young cardinal.

Drove into Linton for supplies + gas. Also mailed postcard to Dr. Miller asking for more ammunition + note paper. Then back to Foundation for lunch + to prepare birds. I finished at 1800 + waited for Dick so we go out for more specimens. Wrote notes.

Went out to locality 12 mi. SW Refugio, Refugio Co. Tried to get Cassin's Sparrows with no luck until one flew in just as we were leaving. Flushed young with $\frac{3}{4}$ grown tail but unable to collect it either. Adults are very wary + flush 50-60 yards ahead + sit very tightly. Came on coiled Crotalus atrox just at edge of a mesquite. When Dick tried to collect it the snake struck with no warning rattle + then backed with several more strikes into

L. Wolf

1964

Journal

June 27

Welder Wildlife Foundation, San Patricio Co., Texas

Mammal burrow at base of the mesquite. Saw shed skin on ground at entrance to hole.

Back to foundation at 1800. Dick made supper while I prepared the specimens. Then to bed at 2030.

June 28

Welder Wildlife Foundation, San Patricio Co., Texas

Up at 0445. Quick breakfast & then into field. I went back to sec. 40 lots 2, 3, 7 - same area as last two days. Spent until 1015 trying to observe Cassin's Sparrows. Territories seem to be breaking down & birds are wandering more. Saw Sparrows cross road for first time & birds moved thru several consecutive areas that I earlier had regarded as territories. No activity essentially in terr. #1. Saw another ♀ Painted Bunting carrying food & deep fecal sac. Also family of Lark Sparrows.

Dick went back to 12 mi. sw. Refugio & collected 13 birds - including one ♀ Cassin's Sparrow. Spent until 1515 putting up specimens & eating lunch. Then took Dr. William Thompson & Bob Railow from Wayne State Univ., Detroit to where found Painted Bunting nest yesterday. I spent until 1630 driving around Foundation grounds looking for new areas to watch Cassin Sparrows. Found several - some areas may be suitable but this is poor time of day for song activity.

Finished notes & had supper. To bed at 2000.

CC Wolf
1964

Journal

June 29

Welder Wildlife Foundation, San Patricio Co., Texas

Up at 0500. Had breakfast + into field. Drove over ranch of Foundation looking for new area. Finally stopped at Mesquite Tank (Sec. 44-8). Area here is dense brush - mostly mesquite both shrub + clumps of low lying. Her grass forms path with occasional wide spots thru the thorny brush. Not any taller but much denser than where studying yesterday. Found birds here (at least some) to be more vocal. ♂ #2 spent most of time I was watching singing. Concentrated half of morning's work on a pair of Cassin's Sparrows that were chipping actively in a restricted area. Finally flushed the nearly grown young. Watched activities of ♂ #2 until 1030 when left area. Had family of Cardinals chipping excitedly around me - not sure why. Laughing Gulls flying SE overhead + Boat-tailed Grackles going NW. ~~Found~~ First year ♂ Painted Bunting chased Cassin's Sparrows whenever they approached him too closely.

Dick went back to area (2 mi. SW. Refugio) + spent much of his time walking along fence. Collected 19 birds including 700 ♂ + 1 ♀ Cowbird (br. headed) in flock. Also young Saison-tailed Flycatcher + Bell Vireo. Got one 1st winter Cassin Sparrow. Went into town for supplies + gas. Stopped on Patrick Welder ranch on way back + obtained permission to collect on that land.

I spent afternoon preparing specimens while Dick worked on his insects. He brought in a fledgling Lark Sparrow that he found on lawn. Had supper (after short rain ~ 1530), worked more on birds, then wrote notes, + to bed at 2030.

LLWof
1964

Journal

June 30

Welder Wildlife Foundation, San Patricio Co., Texas

Up at 0500. After breakfast Dick drove me out to mesquite bank to look for Cassin Sparrows. ♂ #2 was singing so I spent ~ 1/2 hour recording most flight songs. He sang until 0950 when I left to return to headquarters. About 0700 2 flights of Laughing Gulls (2 + 3 birds) went over to E. Four ♀ Boat-tailed Grackles flew over going NW + soon reappeared in reverse direction. Family of Cardinals - at least three young - still in area & ♂ singing from mesquite beneath which I sit during obs. periods. Bewick Wren came into mesquite & I watched it picking insects from a spider ~~web~~ web. At least one adult ♂ + one immature ♂ Painted Buntings have territories that overlap those of Cassin Sparrow ♂ #2. No other species of sparrow seen on his territory.

Day started calm + cool. Wind began to pick up by 0700 + it was hot (> 80°) by 0900. Humidity reported at 49%. Nearly cloudless except for large storm cloud in E in early morning.

Dick collected in Patricio Welder ranch in open mesquite areas trying for Cassin Sparrows. He got 19 birds including nine C. Sparrows, 2 Desert Sparrows, + 2 Lark Sparrows. Full grown young with each ~~ad~~ species.

Spent from 1030 to 1800 papering specimens collected today. Wind stronger in afternoon + temperature went above 90°F. (94-96°) Cools off by 1800 + wind begins to calm.

Write notes, had supper.

Cassin
Sparrows

Cassin
Young

LL Wolf

1964

Journal

July 1

Welder Wildlife Foundation, San Patricio Co., Texas

Up at 0500. Into field after breakfast. Dick drove me to Mesquite Tank where ♂ #2 singing, but surrounding ♂♂ quiet. Looked for ♂ #1 + #5 cursorily - no luck. Walked to NW along rut road (not on refuge map) for 300+ yds. Came to another concentration of singing ♂ Cassini Sparrows. Picked out an accessible bird + began to watch him - 0605 - just as he and ♀ with moved thru his territory. Spent until 0830 here. Dick arrived with news that my shotgun was broken. He will fix his + return to field. I went back + tried to watch ♂ 300+ yards to W of mesquite tank, but no luck. Heard #2 ♂ in this area singing but he quieted down by time I arrived - so back to area of tank to hunt for ♂ #1 + #5. Still no luck so watched ♂ #2 to compare with quieter day before and a little earlier. While watching both ♂ #1 + #5 sang, but not consistently.

Dick arrived at 1100 with a total of 9 birds. Back to headquarters for lunch + to prepare specimens. Dick put up some reptiles + then went into Corpus Christi, Texas to have gun fixed + try to get some boxes to mail birds. I spent afternoon preparing specimens. Hot + windy.

Supper at 1830. Wrote notes.

July 2

Welder Wildlife Foundation, San Patricio Co., Texas

Up at 0500. Into field after breakfast to watch Cassini Sparrows. Arrived at Mesquite Tank at 0545. ♂ #2 was singing so spent early part of morning watching him. Wind picked up

LH Wolf
1964

Tournal

July 2

Welder Wildlife Foundation, San Patricio Co., Texas

early in morning & was 10-15 mph by 0800. By 1000 was 11-15 mph. - fairly steady with some gusts. By 0730-0745 began spending part of time watching birds in terr. #5 & returning to σ^7 #2 & intervals to time his activities. Seemed to spend less time singing & more feeding especially after 0900. Birds in terr. #5 are at least 4, prob. 2 adults & 2 young - young are full grown & at least part way thru post-juv. molt. Bott-tailed Grackles flew over to SW ~ 0715 & then back to NE at 1645 \pm . Three σ^7 s & a ♀ in morning. Only 2 σ^7 s noted in afternoon. Tufted Titmouse came into backberry under which I was sitting about 0830, called several times & flew on. Dichroicetes in pairs flew over twice. Covey of 15 \pm ~~flushed~~ flushed from edge of road ~~300 yds~~ 1/2 mi. N. Mesquite Tank at 0530. Probably same covey flushed from area of Tank at 1630 & flew off to N. At 1710 covey of 15 \pm flushed from about same area as at 0530.

Spent afternoon packing birds for shipment & doing odd jobs around headquarters. Dick had spent morning looking for Yellow-billed Cuckoo nests & since both guns are broken we did no collecting.

At 1600 went back to Mesquite Tank to see σ^7 #2. Unable to find him. Started to sprinkle at 1645 - very cloudy with lightening & thunder in distance. Did not rain hard.

Supper at 1830 after working on some plant identifications then wrote notes & to bed at 2100.

Carson
family group

LL Wolf
1964

Journal

July 3

Welder Wildlife Foundation, San Patricio Co., Texas

Up at 0500. After breakfast I drove out to Mesquite Tank to watch ♂ #2 Cassin Sparrow + try to find group in terr. #5. Had excellent morning with ♂ #2 until 1100, but little luck in #5. Spent from 0855 to 1110 continuously with ♂ #2. He declines markedly in amount of time spent singing + number of flight songs performed. The morning began with sun behind a cloud, but soon was bright. The wind got up to 5-10 mph, but not nearly as strong as yesterday. Was hot by 0900 + activity diminished. Saw ♀ Painted Bunting carrying food in terr. #5. ♂ Cardinal of the family group is singing actively. A Yellow-billed Cuckoo called from several trees within 100 yds. of me. Both ad + 1st year ♂ Painted Buntings were singing actively. Back to headquarters at 1130. Checked Road-runner nest - still one egg + apparently deserted.

After lunch prepared birds left over from June 29. Also assembled materials for a plant press + a shipping crate. Ate supper, wrote notes, + to bed at 2030.

July 4

Welder Wildlife Foundation, San Patricio Co., Texas

Up at 0500. After breakfast Dick drove me out to Mesquite Tank. I spent until 0900 watching Cassin's Sparrows ♂ #2 + #5 while Dick drove into Corpus Christi to pick up our guns. Found a Painted Bunting nest with 2 recently hatched young + an egg. ♂ #2 used some new perches closer to terr. #5 + on a pine well into #5. Still no ♀ in evidence. Found only one young in terr. #5 plus the ♂. Watched ♂ + juv. Pyrrhuloxia

LL Wolf
1964

27

Journal

July 4

Welder Wildlife Foundation, San Patricio Co., Texas

in Terr. #5. Dick had unfortunate luck with the guns. Mine was not fixed + the gunsmith was not there - so we are still without guns until at least Monday. Try to borrow one from Dr. Cottam of Welder Foundation.

Walked back to headquarters then rode back out to our winter land with Bob Rinkow to show him the Painted Bunting nest. The ♀ slipped off the nest ($3\frac{1}{2}'$ up) at the edge of a Celtis (actually in Lanthoxylum) + dropped down to near base of Celtis. did not make any noise. One of young had lepidopteran larva $\sim \frac{1}{2}$ way into mouth. Unable to hold up head for long periods - drooped ~ 15 sec after we arrived.

Then back to headquarters for lunch + to pack birds to ship back to Berkeley. Had a nice picnic at 1600 to celebrate the 4th - barbecued kid.

After supper drove out to Lake Camp to check on Tissot - Tailed Flycatcher nest with four eggs. Arrived to late nesting of Yellow-billed Cuckoo. Dr. Clarence Cottam tells us that he saw a nest + "2 or 3 weeks" ago that contained young. Probably he was correct in identification, but we have not seen any young cuckoos out + flying.

Wrote notes + to bed at 2030.

July 5

Welder Wildlife Foundation, San Patricio Co., Texas

Up at 0500. Had breakfast + then I went into field with Dr. Cottam's gun to collect Cassini's Sparrows. Dick went to a Yellow-billed

HL0014
1964

Journal

July 5 Welder Wildlife Foundation, San Patricio Co., Texas

Cuckoo nest to observe & try to discover food parents are bringing to nestlings. Early morning was quiet except for myriads of Prosopepla-like flies that crawl all over & into eyes, nose, ears, & mouth. After I shot a bird which bled considerably I noted several of these flies gorging on the blood. Collected several lone ♂♂ in early morning. By 0730 it was beginning to get warm & found several family groups of Cassin's Sparrows. Hard to collect adults from these groups. Dick arrived to say that young were gone so he was going to another area to look for Cuckoo nests & to collect lizards. After 0800 I had difficulty locating groups of sparrows & even more trouble hitting any. About 1000 found mixed group of Verdin, Desert Sparrows, Bewick Wrens, & Painted Buntings. Managed to get a wren & bunting. Probably partly territorial group some members attracted to alarm calls. ♂ Cassin Sparrows still singing as we left area at 1015. Tried to collect a ♂ singing from fence post on way back.

Had lunch & prepared specimens. Wrote up list of species seen on the Foundation for Dr. Cottam. Also plan to give him 2 birds - Bell Vireo & Brown-headed Cowbird.

Then back into field. No luck. Found Cassin's Sparrows sit very tight in clumps of running mesquite - probably on ground. Either flush from underfoot or long before one arrives. Fly for long distances & disappear.

Had supper & talked to Dr. Wm Thompson about localities in Mexico. To bed at 2300.

lone

family groups

singing

hubs

LL Wolf
1964

Journal

July 6

Walden Wildlife Foundation, San Antonio Co., to Laguna Atascosa Refuge, Cameron Co.,

57783.0 - left Walden Foundation at 0830.

Texas

Drove into Sinton where tried to get Dick's watch at repair shop - not finished yet so he will have it sent to Brownsville. Continued on + went into Corpus Christi + picked up shotguns at the repair shop. Then back out to U.S. 77 + drove south thru farming country. Bought gas in Kingsville then S again this time thru mesquite dominated grasslands. Much has been overgrazed + saw one field almost completely overgrown with Prickly Pear (*Opuntia*). Noted stretch of road with sand ridges on east side. Some were clear sand + probably moving. Again around Harlingen farming takes over much of the land. Drove into Harlingen + picked up mail - then S to Brownsville where got mail + ammunition from M/Z. Then back north for 17 miles to San Benito. Took road 345 to NE until reach road 106. Once on this road go straight - several places where crossroads. Ignore the dead end road sign + continue on. Road curves to right but is marked as going to Laguna Atascosa National Wildlife Headquarters. This is where I wardens live but there is an office in the post office bldg. in San Benito. Good idea to stop there and inquire before going out to Refuge. Met Richard Rigby + George Ueland the 2 wardens. Can camp on refuge. Ueland is apparently a Birder + has been here 6+ years so knows locales for most of birds. Says Botteri + Cassin's Sparrows occur together here. Tomorrow will tell. Set up camp, had supper, wrote notes + to bed.

LWOLF
1964

Journal

July 7

Laguna Atascosa Wildlife Refuge, Cameron Co., Texas

Up at 0530. Coyotes calling at 0500 \pm . Had breakfast & then drove around Refuge trying to locate colonies of Botteri Sparrow. First took tour of gunnery range. Drove east on surfaced road then S. to sign pointing to shoreline drive. Followed road out to shore of Laguna Madre & drove the 2 miles along the shore. Found many Cassin Sparrows & a few Botteri (see species acct's). Then turned inland & back to surfaced road just N of Naval Auxiliary landing field. Then back to entrance. Route included areas of mesquite grassland, prickly pear & hackberry & scattered huisache & mesquite. Mesquite grassland of two types - one with tall mesquite & non-bunch grass, the other with smaller trees & sharp bunch grass - prob. a salt grass. The Cassin Sparrows in more xeric prickly pear - hackberry & out into salt grass & mesquite. The Botteri Sparrow seemed limited to bunch grass - mesquite habitat.

Then took lakeside tour around Laguna Atascosa. Found nice colony of 6-8 pairs of Botteri where road comes closest to Laguna ~ 2 miles W of Refuge headquarters. Had heard several scattered $\sigma^7\sigma$ just before this. Spent 20-25 minutes here recording & observing. Birds along here were also in bunch grass - short mesquite association. Drove on out to Rio Hondo East Road & crossed Upper Cayo Atascosa then thru gate just W of Cayo & back in along road beside Laguna & various ponds. Found Botteri in two places near gate - both times in

hab.
association of
prickly pear &
hackberry

habitat
Cameron

LL Wolf

1964

Journal

July 7

Laguna Atascosa Refuge, Cameron Co., Texas

hot
junction
bunch grass - short mesquite association. Heard several more Cassin Sparrows in more xeric habitat. Road goes by several impoundments. Horned Larks + Wilson's Plovers flush from road ahead of car. Found very young (only several days old) Willet + caught it. Up to 6-7 adults came in to scold. Noted that several times one adult chased another from area. No real broken wing display, but 2 adults ran away with tail spread + depressed, head lowered, + plumage slumped. Tried to take pictures of adult + young. Probably not successful. Road ends, so have to turn around + retrace route. Drove in toward Rio Hondo to store. Bought few groceries + gas. Back to Refuge for lunch + write notes during heat of the day.

Partly cloudy during much of early morning with cloud over sun most of time prior to 0900. Kept things cool. Wind came up about 0700 + by 1000 was 10-15 mph + gusty. Is excellent to keep cool in the shade, but is terrible for recording + shimmering.

Went back to Laguna Atascosa area to watch Bohri Sparrows at 1600. Found several apparent ♂♂ + watched one of them. Later found chipping bird carrying food, but ate it without going to young. Back to camp for supper at 1830. Found Dick sleeping again - seems he has a headache, fever, + generally feels bad all over. He went to bed at 1915 while I did dishes + wrote notes.

Dick Rigby came by + reported, as expected, that no arrangements could be made to shoot on refuge. He will try to get us permission to collect on some land around the refuge.

I bed at 2000.

LLWOLF
1964

Journal

July 8

Laguna Atascosa Refuge, Cameron Co., Texas

Up at 0500. Dick still not feeling well so stayed in bed until I left after breakfast at 0530. Says he plans to stay in camp today + get over his headache. I went out to a zone W of headquarters along S. shore of Laguna Atascosa to area where saw territorial encounters + did some tape recordings of several ♂♂. Found pair carrying food + soon one adult went to ground. By 0700 was sure of nest location + walked over to find one young ~ 7 days old. Spent rest of morning watching this pair with notes on when surrounding ♂♂ were singing.

Had lunch + wrote letters from 1300 to 1500 then went back to watch Gotteri Sparrows. Took pictures of nest + nest site then spent rest of time locating other pairs. At least four ♂♂ are using the area. Territories seem to be $200 \pm$ yds in longest dimension. Bird #1 has long narrow territory bounded by Laguna + road, does cross just to other side of road. Back to camp at 1900.

After supper drove over to headquarters where talked to Dick Rigby about areas to collect. He had called Ned Hudson the local bird expert who said areas to S of refuge were good. Dick got us permission to hunt on land owned by Jim Biggs. Supposed to take Road to Port Isabel just W of Refuge boundary off Rio Hondo Road. Followed to R. 510 (a110) + turn east. Then to N at next road. Or can go to E to sign pointing to Holly Beach. Dick says will try these areas in the morning. To bed at 2010 after writing notes.
Temp 73° to 95°F.

LL Wolf

1964

Journal

July 9

Laguna Atascosa Wildlife Refuge, Cameron Co., Texas

Temp. 74-95°F.

Up at 0500. After breakfast Dick took me to area 2 mi. W of headquarters to watch Botters Sparrows. Saw Black-bellied Tree Duck perched on dead mesquite - apparently roosted there during night. Many Boat-tailed Grackles roosting in mesquites. Some leaving at 0530. Most gone by 0615. Spent morning watching Botters Sparrows. Found another nest with 2 egg, 2 young, + 1 Molothrus ater egg. Flushed both adults from nest when went to measure eggs at 1030.

Dick drove to Port Isabel Rd. just W of refuge boundary on East Rio Hondo Road, turned S for 4-5 miles to ~~airport~~ a dirt road (palm lined) turned E to airport road then S on airport road to Hwy 570 where turned E, followed 570 to Holly Beach Rd (2-3 mi). Drove NE on Holly Beach Rd for 3/4 mile. Spent rest of morning until 1000 hunting here. Used tape recorder to try to attract Botters Sparrows to collect.

Back at 1030 to feed me up. Back to camp where spent afternoon preparing birds. At 1545 I drove back to Laguna Atascosa (2 mi W. headquarters) to watch Botters again. Watched pair #1 feeding young + photographed nest of pair #2 - one egg hatched. Back to camp at 1830 where had supper. Dick had caught two Ribbon Snakes + a Sceloporus ~~sp~~ while I was gone. After supper he went up to take shower while I did dishes + finished a letter. He talked to Dick Rigby + thanked him for his help + interest. Dick returned about 2045 shortly after I had gone to bed.

LL Wolf
1964

Journal

July 10 Laguna Atascosa Refuge, to Brownsville, Cameron Co. Texas

Up at 0500. After breakfast Dick drove me out to Laguna Atascosa to watch Botteri Sparrows. I soon located a chipping adult carrying ^{food} - territory #8, on both sides of road beyond ferr. #4 & Watched this pair for rest of morning until 1030 when Dick returned.

He had gone to locality ^{near airport} of open grassland now being overgrown with a succulent like Salicornia + several other small perennial herbs of xerophytic + probably halophytic nature. Found Cassin + Botteri Sparrows together apparently inhabiting same sorts of vegetation. There was some Spartina-dominated areas nearby but Botteri's were not limited to those areas. He found nest of Botteri containing 7 white eggs.

Spent until 1200 eating lunch + preparing birds. Very windy up to 20+ mph hour + difficult to work. Then broke camp + left refuge. Checked + measured three ^{nots} ~~nots~~ on way out. Caught ad ♂ shading young on nest #8. Then over to view nest near airport. Tried to collect ♀ as she flushed from nest - unsuccessful. Measured nest + eggs.

Then into Harlingen + back to Brownsville. Bought some clothes + groceries + took a motel. (\$5). Cleaned up + went out for supper.

Temp 76 - 95°F. very windy during 0900 - 1600. Wind during most of night while other nights were still. Partly cloudy + sun shaded during part of morning observing - provided relief from sun as area has no appropriately placed shade. To bed at 2100.

LH Wolf
1964

Journal

July 11 Brownsville, Cameron Co., Texas to Ciudad Mante, Tamaulipas

Up at 0500. Had breakfast & packed car before leaving motel at 0745. Drove to downtown Brownsville to discover that the Mexican Consulate opens at 0900. Mailed package of books back to Berkeley & had cup of coffee while waiting. At 0900 the secretary at consulate said we must wait until consul comes in at 0930. When he arrived he agreed to provide consular permit for guns, but that by the rules we should have done this in San Francisco. Had to return at 1100 to pick up permit. Obtained car insurance at Humble agency at gateway bridge. After ice cream went back to consulate & picked up permits. Drove across Rio Grande to new customs building in Matamoros. Validated our tourist cards & obtained car permit. Then for two dollars + 10 pesos the inspector agreed not to look at all our equipment. Left Matamoros at 1230 mileage 58323. Drove south thru farming country & some mesquite woodland to Ciudad Victoria where bought gas. In Victoria turn left at 1st stoplight on R. 85 to Mexico City. As went S on R. 85 the thorn scrub became more verdant & denser. Noted flocks of 25+ White-winged Doves both N+S. of Victoria. Flock of 25+ Mexican Crows roosting in mesquites along road about 1700.

Just north of Ciudad Mante came into sugar cane fields. Finally found road leading off to W which we followed for 3+ miles. Then turned on dirt road along canal & turned E into sugar cane field where spent night.

Mileage 58614.

To bed at 2000.

hllwof
1964

Journal

July 12

Ciudad Mente, Tamaulipas to ^{2 mi.} N Colonia, Hidalgo, Mexico

Up at 0500. Had breakfast + broke camp. Drove south on R85 thru some dry country + a more humid valley. Becomes more lush S. of Valles. Just beyond Rancho Viejo, Hidalgo the country becomes dry again + thorn scrub becomes dominant vegetation after section of oak + pine-oak.

Much of the high country is farmed - mostly agave.

Stopped ~ 1 mi. S of Jacatillo at an abandoned fort + looked for birds. Saw Hooded Yellowthroat + Rusty Sparrow.

Stopped for evening at 1745 as drop down into valley where Colonia is located. 58938. Cooked supper, wrote notes, + to bed.

July 13

2 mi. N. Colonia, Hidalgo to Cuernavaca, Morelos, Mexico

Up at 0600. Had breakfast + packed car. Drove south toward Mexico City to 18 mi. when turned east to San Juan Teotihuacan. Spent until 1000 looking at Aztec ruins including pyramid of the sun. Then thru Mexico City + on R95 via toll road to Cuernavaca at 1200. Spent until 1400 looking for an apartment.

Finally took one on road out of town to Cañon de Lobos. On Calle Madera just past the high school.

Then drove SW on old R.95 thru Acatlpa looking for locality mentioned by J.S. Rowley as good for Aimophila ruficauda + A. humeralis. No luck. Found some A. ruficauda + shot 3 that flew from same tree. At least two of them had been courted - darting with another pair. Back to Cuernavaca where arranged apartment, ate supper, repacked specimens + to bed at 2100.

vagant
grows

LL Wolf
1964

Journal

July 14 Cuernavaca, Morelos, Mexico

(lp at 0500 (light rain at night - heavy in late afternoon yesterday). Had breakfast + drove out to Cañon de Lobos which is on road to Cuautla. Vegetation wet from rain. I worked up S side of canyon while Rich collected along stream in bottom of canyon. I spent morning looking for Amphispiza ruticanda + A. humeralis. Worked mostly on dry hillsides at east end of canyon. Walked up side canyon to South with no luck. Found nest of A. ruticanda with four eggs + nest of ^{Ceryle alcyon} ~~Thryothorus plumbeus~~ with 3 eggs. Spent rest of morning watching several groups of A. humeralis.

Was stopped by game warden just as returning to car. Had left permits in car so he would check on list to see if we were legal.

Back to apartment where spent rest of day to 2030 skinning birds. Wrote notes + to bed.

Day was cloudy until 0900 + then partly cloudy + warm.

Flock of 25+ Black Vultures feeding in garbage dump along road. Lesser Goldfinches became much more noticeable by mid-morning. ♂♂ giving flight songs + saw 2 ♂♂ chasing a ♀. 8 to 10 Rough-winged Swallows feeding on wing or sitting on phone line - some young. 25+ White-collared Swifts whirled over top of canyon at ~ 0800. Heard at least two groups of Plain Chachalacas calling from hillside.

LL Wolf
1964

Journal

July 15 Guernavaca, Morelos, Mexico

Up at 0445. Had breakfast + then drove out to Cañon de Lobos. Had to come back to pick up collecting permits in case Forestal man came by again. I spent much of morning watching a pair of Amphispiza humeralis. ♀ laid egg about 0815. Had noted swollen abdomen earlier in morning. Thought she was incubating so watched nest for about an hour before finally going up to check + finding two eggs. Then walked around for ~ 90 minutes looking for more humeralis. Found several pairs but not any in groups of 3 or more.

Dick collected 16 birds during course of morning.

Day started cloudy + had several light sprinkles. About 1000 mostly cleared up + sun came out. In afternoon clouded over + had thunderstorm.

Spent afternoon skinning birds after trip to market for food. Finished skinning about 1900. Had supper, wrote notes + to bed.

July 16 Guernavaca, Morelos, Mexico

Up at 0500. Had breakfast + drove out to Cañon de Lobos. Dropped Dick off at head of cañon from where he walked down to the end. I went to S end + parked. 1st checked nests of Amphispiza ruficauda + A. humeralis. Then onto west facing hillside to watch ruficauda. Found area with at least three pairs. Had to watch as they quickly disappear in the vegetation when quiet. First noted as three separate pairs. Later in morning found group of 5 + feeding together on hillside above where I was watching. Probably included some of my birds.

LH Wolf
1964

39

Journal

July 16

Cuernavaca, Morelos, Mexico.

Tried to locate nests with no success. When Dick came with car at 1145 I went back to two nests for final check. Found what probably is a ruficauda nest under construction.

Day was partly cloudy at start, but sun was almost up when we reached canyon at 0600. (Usually obscured by clouds). Almost cleared completely + rest of day was sunny. Road wet on way out + probably had rain last night.

Back to Cuernavaca for lunch. Spent rest of day preparing specimens - 11 skins + 8 skeletons.

Had supper, wrote notes + to bed at 2015.

July 17

Cuernavaca, Morelos, Mexico

Up at 0445. Had breakfast + drove to Cañon de Lobos. Arrived (0535) before sunrise but birds already singing. Spent morning walking around looking for Amphispiza. Watched pair of A. humeralis foraging in wooded thicket. Found ^{only one} group ~~except~~ short time when 3 A. ruficauda together - today larger than 2.

Spent all my time on west facing slope at S end of canyon. Dick collected across the canyon on east facing slope. Both sides at this end are dry + dominated by Acacia.

Back to Cuernavaca + went to market for food. Then back to apartment to process specimens. Finished at 1830.

Day clear until late afternoon when clouded up to east.

Had supper, wrote notes + to bed.

LL Wolf
1964

Journal

July 18

Guernavaca, Morelos, Mexico

Up at 0500. After breakfast had to get some poor fellow out of bed to move his car so we could get out. Arrived in Cañon de Lobos at 0600. Already light, but last of bats still flying. Dick plans to hunt west hillside + canyon bottom in South - drier - end of canyon. Also where inroads have been made for cornfields. I walk down toward where Aimophila ruficauda nest is located. Find pair just N of them on other side of road. Surrounded by pairs of A. humeralis, but no apparent conflict. Although saw two species within 10-15 feet. Watched these birds for short time + tried to find nest - no luck. Then down to watch ruficauda nest on east side of road. Birds would not go to nest in 2 hours I watched so left to keep young from starving or cooking. Spent rest of morning to 1100 watching A. ruficauda + humeralis when could find either. Have pair of humeralis located in 100% tree canopy area. Act like maybe have nest or young nearby. Saw coveys of 5± Barnard Quail (Philortyx fasciatus), 2 Brown-billed Anis flew across canyon from E to W + 2 groups of Boat-tailed Grackles (6-8) flew over going N following canyon.

Dick collected 11 birds including 2 stub-tailed young A. humeralis. I wished young A. ruficauda + then back to apartment. Spent afternoon preparing birds + trying to identify some dominant tree + shrub species from dry end (S) of canyon. Met with little success.

Had supper, wrote notes + to bed at 2030.

humeralis +
ruficauda

LLW01f
1967

Journal

July 19 Guamavaca, Morelos, Mexico

Up at 0500. Had breakfast & drove out to Cañon de Lobos.

Walked down to area at edge of cornfield in Acacia-dominated hillside. Watched two pair of Aimophila ruficauda in boundary confrontation. Spent until 0800 watching these 2 pair. Then over to nest of A. ruficauda. Watched here for 1 hour from 30± yds away & parents would not come in. Left nest site & checked A. humeralis nest - adult incubating. Back to watching 2 pair around cornfield - saw at least three together for short time.

Saw Russet-crowned Motmots carrying food. Flock of 6± Philogonys cinereus flew overhead & lit at edge of cornfield on west slope of canyon. Banded Wren nest - 3 eggs hatched by 1100. Took one young for downy young. Weighed young in A. ruficauda nest & took Bronzed Cowbird.

Back to apartment where spent rest of day preparing specimens. Dick got 16 birds, a huge Bufo, & a Sceloporus sp.

Day started cloudy & windy. Fog hanging on most of ridges on either side of canyon & moving to west down side canyon. Started to clear about 0800 & was sunny, but partly cloudy, rest of day. Noticed fewer Black & Turkey Vultures today & they began soaring late in day (0830) than usual.

Wrote notes after supper & to bed at 2030.

LL Wolf
1964

Journal

July 20 Cummaraca, Morelos, Mexico

Up at 0500. Had breakfast + drove out to Cañon de Lobos as it was getting light. Tried to shoot bats in early morning. Went down to edge of cornfield near Aimophila ruficauda + A. humeralis nests. Spent most of morning watching 4-5 pair of A. ruficauda. Seems to be three birds associated with nest. Otherwise other 4 pairs are only 2 birds. Worked especially on sequences + apparent situations in which chatter duets occurred. Up to 0800 birds are very vocal + spend most of time up in exposed positions calling. Then activity becomes more quiet as birds begin to spend more time foraging. Pair (2) with nest + young seemed to spend much less time duetting than other pairs. Have been able to find no evidence of breeding by other pairs.

Dick worked on west hillside - dry + partly cut over. Collected an Ammaospiza corvolor. Said a ♀ was with ♂ collected. Obtained 9 birds, five lizards, + a rabbit - (left for supper).

Back to apartment where prepared birds. Had car greased + oil changed in afternoon. (mileage 59345.0)

Day was partly cloudy, but sunny until late afternoon when it clouded over + rained for a short time. Only partly cloudy by 1900.

Had rabbit + 2 Banded Quail for supper. Very good. Wrote notes + to bed at 2030.

upside down
group

chattering
two young

LWOLF
1969

Journal

July 21 Guerravaca, Morelos, Mexico

Up at 0500. After breakfast drove out to Cañon de Lobos. Arrived as was getting light. Shot at a bat. I went down to cornfield to watch Amphispiza ruficauda. Dick went up a side canyon to west. About 0700 at time when sparrows are generally most active a car ran out of gas on road opposite cornfield. All the subsequent commotion until they left about 0730 just about eliminated any territorial activity. Apparently mostly foraging by 0830 so looked for pair f.s. Found them + ^{possibly} ~~possibly~~ their nest - but they soon disappeared. Watched a pair of Banded Wrens (Thryothorus plumbeus) building a nest - nearly completed. 2 ♀ Boat-tailed Grackles flew N parallel to canyon. Returned to car at 1100 to find someone had tried to break ~~force~~ open small side window. Apparently had not managed to get into car.

Back to town when went to market then spent rest of day preparing birds. Had supper, wrote notes, & bed at 2030.

Day was only scattered clouds until 1700 when began to cloud up. Thunder & lightning by 2000.

Heard chatter of Melospiza kiewer today. Sounds very like squeal of Pipilo fuscus.

July 22 Guerravaca, Morelos, Mexico

Up at 0500. After breakfast drove out to Cañon de Lobos. I spent until 0930 watching Amphispiza ruficauda in Acacia dominated scrubby flat area along road & near cornfield. Cows graze thru here, but the Acacias are thick enough in some places to prohibit walking between adjacent plants.

ruficauda
habitat

LLW 8/4
1964

44

Journal

July 22

Guernavaca, Morelos, Mexico

Dick drove down the road about a mile when collected in similar area. He came back at 0930 with 13 birds. I took the gun + walked up the west facing slope to crest of hill. Along crest to N + curved to NE as followed along top of side canyon. Dropped down into this side canyon. Stopped once to whistle like Clauodius.

A saw Myiagapis viridicincta, Two Myiarchus, Aechmophorus, Empidonax, Thryothorus plumosus, Turdus assimilis, Actenus pustulatus, Vireo, Geothlypis, Basileuterus rufifrons, Rose-throated beards, Amphispiza, humeralis, Melospiza cinerea, Amazilia beryllina, Chondestes, canivorus. The Myiarchus + Myiagapis chased + flew at other birds that approached - only the oriole did not give way. Upon crest in cut-over shrubby area I saw one first Chondestes drop down trunk of oak to ground. Couldn't collect it. Weighed young of A. ruficauda in nest #1 at 1100. Dick reported finding another Amphispiza humeralis nest with 3 eggs.

Drove back to Guernavaca at 1200. Spent rest of day preparing skins + writing notes. Dick took car down to get broken window fixed. Tomorrow is better.

Had supper + to bed at 2000.

Clear to scattered clouds all morning. Bright sun starts hitting canyon about 0615 + lights floor where I am working by 0700. Clouded up + rained hard for about 1/2 hour at 1530.

LHW 014
1964

25

Journal

July 23

Guernavaca, Morelos, Mexico

humeralis
habitat

Up at 0500. Had breakfast & drove out to Cañon de Lobos. I walked up east facing hillside to area of shrubby 2nd growth. Some Acacia - mostly much orange. Area mostly in shrubs, but some patches of grass - too dense for Amphispiza ruficauda. Spent morning until 1015 watching (or trying to) A. humeralis. There were at least three pairs in area. At 0739 flock of 50± Streptoprocne flew by going south just below the west crest. Could not see any white throats - so probably S. semicollaris. At 0815 flock of 50± Streptoprocne zonaris swirling above W crest - from just above crest to several hundred feet up, generally moving in clockwise direction, but sometimes broke off into flapping flight along ridge. One small swift (Chaetura rufula?) with them. Heard several singing ♂ Musty Sparrows above me where oaks are present. Also at least one trogon.

Dick collected about 1 mile beyond S end of canyon for A. ruficauda. Saw 5 or 6 pairs & two groups of three. After shooting one ruficauda noted one other & 2 A. humeralis in same tree - no apparent antagonism.

Back to apartment for lunch. I spent afternoon preparing birds while Dick took car to garage to have window fixed. Supposed to be there at 1300, but repairman didn't arrive until 1600. Took 15 minutes & cost 20 pesos.

Had supper after writing notes & to bed at 2000.

Day was bright & sunny after 0830. Sun behind cloud until then.

LL Wolf

1969

46

Journal

July 24

Guerravaca, Morelos, Mexico

Up at 0500 after bad night. After breakfast drove out to Cañon de Lobos. I spent morning in same area as yesterday trying to watch & record Amphispiza humeralis. Not much luck with either endeavor. Finally found Dick - had left him at head of canyon at 0550 - at 1230. He had hunted head of canyon & up east facing slope. Had 21 birds. Back to town where spent rest of day preparing specimens. To bed at 2030.

Day sunny to partly cloudy in late afternoon.

Streptoprocne sp. flew over going S. at 0630 & another (or same) group wheeled over west ridge at 0900. Heard Ptilogonys flying overhead. Found old Melospiza kühneri nest with broken egg shell. Also old Achnolophus nest in deep shade of wooded gully.

July 25

Guerravaca, Morelos, Mexico

Up at 0500. After breakfast drove out to Cañon de Lobos. Dick went up a side canyon on east side (to east) & I went up east facing slope to watch Amphispiza humeralis. Spent until 1100 in this area. Saw young Yellow Grosbeaks, singing Pileated Flycatcher, copulation in Lesser Goldfinches.

Caught the two young A. ruficauda that had been weighing in nest earlier in week. Then collected 4th adult from around nest. Shot Geothlypis trichas.

Back to town where went to market & had haircut. Back to apartment where spent until 1900 skinning. Had supper, wrote notes, & to bed.

Weather sunny but hazy most of day. Haze kept Cañon cool during morning.

LH Wolf
1969

97

Journal

July 26

Guernavaca, Morelos, Mexico

Up at 0500. Had breakfast + drove out to Cañon de Lobos. Dick went down into bottom of canyon + worked north to mouth of side canyon extending up to west. I went up east-facing slope into area where watch Amphispiza bilineata. Spent until 1100 up there with half hour out to go back to car to show our collecting permits to some game wardens (or so they said). In return they gave me a Phylloscopus fasciatus shot just down the road. Saw flock of White-rumped Swifts just above west crest. Swirling in flock of 100+ which then broke up into smaller flocks feeding just above tree tops. At least 4 Ptilinopus caninus (2080 + 248) perched in tree on hillside. A pair of Varied Buntings appeared - noted for 1st time today - on east facing hillside. Several Rusty Sparrows calling from near lower limit of oaks on both E + W-facing slopes. 2 trogons (prob. T. elegans) calling from trees near crest.

Back to apartment where spent after noon skinning birds.

Wrote notes, had supper, + to bed.

Clear in early morning - cloudy to east along mountains - clouding up by mid-afternoon.

July 27

Guernavaca, Morelos, Mexico

Up at 0500. Had breakfast + drove out to Cañon de Lobos. Dick went up into side canyon to west again while I went back up to east-facing hillside to watch Amphispiza bilineata. Day was completely overcast, except for 1-2 hours from 10-12. Rained from 0845 to 0930. Saw flock of 50+ Streptoprocne sp. wheeling over west ridge at 0800. Moved off to W.

LLWoff
1964

Journal

July 27

Guernavaca, Morelos, Mexico cont'd.

Watched *A. humeralis* nest for short time at 1045. I was on nest when 1st looked. ♂ approached to 25 yds. downhill + gave pitz-a call several times. ♀ then flew off nest + joined ♂ where 2 chattered. Did not see either bird again ~~until~~ ^{when} left area at 1145. Looked at Spotted Wren nest + found young covered with bot flies. Collected ♀ + took young. Had earlier taken other young + one egg didn't hatch. Just as we were leaving a ♀ Blue Grosbeak flew up from edge of road. Collected her as first observation of the species in the canyon.

Back to Guernavaca where spent rest of day preparing birds.

Wrote letter to Dr. Miller requesting more nest labels.

To bed at 2030.

July 28

Guernavaca, Morelos, Mexico

Up at 0500. Had breakfast as it began to rain. Still raining (harder) at 0600 so decided to stay at apartment for morning. Dick took car to have tire up + go to market. I stayed to wrap birds.

Cleared up by 0930. Dick returned at 1130 + after lunch we decided to go out to Actitipa - SW of Guernavaca. Parked on cart trail leading to river. Walked in area of candleabra + tree Opuntia, Acacia, grass, + cornfields. Along nearly dry streambed flushed Jua + Ground Doves (common), Rufous-backed Robins, ^{Icterus spurius} Ammodramus ruficauda + humeralis. Collected a Centurus hypoleucus from a tree Opuntia. Crossed stream + walked along cornfields + 1-2 feet deep herb cover. Worked uphill thru cornfield. Mostly A. humeralis where herb cover 100% except where shrubs + cacti. Found several pairs of ruficauda.

humeralis
adults at
nest

humeralis +
ruficauda
dozens

LL Wolf
1969

Journal

July 28

Guernavaca, Morelos, Mexico - cont'd.

at edges of cornfields. Flushed both species from ground in corn. After shot one + humeralis which dropped to grass + fluttered slightly. The ♂ flew over + worked down to 2⁺ feet up in partly defoliated tree. Missed him. Lesser Goldfinches common in pairs + small groups - song flights. Saw one Curve-billed Thrasher on Opuntia - dominated hillside. Also several House Finches.

Dick collected 11 lizards of 5 or 6 species while I collected birds. Returned to apartment where prepared specimens, had supper, + to bed. By 1630 the sky was overcast again + will probably rain again tonight.

July 29

Guernavaca, Morelos, Mexico

Began raining about 2120 last night. But was clear when we got up at 0500. After breakfast drove out to Canon de Lobos. Arrived at 0545 as beginning to get light. Checked Aimophila humeralis nest - 1 egg hatched. Then went uphill on east-facing slope to work my last day on A. humeralis. Sun on that part of hill by 0630. Saw groups of three birds twice today. The Plain Chachalacas were especially vociferous today. 1st yr. ♂ Varied Bunting has several song perches in area where I observe. Back to car where took pictures of several nests + canyon. Dick came in at 1045. We went back to stream bottom where he showed me what was probably an Aimophila humeralis nest - ^(Gingher - 27 Oct. 1964) of grass with horse hair lining + contained one cracked, white egg. Then caught one further.

Back to Guernavaca where prepared specimens, supper, notes, + to bed. Day was clear to partly cloudy, but sunny all day.

LL Wolff
1964

Journal

July 30

Guerravaca, Morelos to 5 mi. NW Coyuca, Guerrero, Mexico

Up at 0500. After breakfast packed car to leave for Guerrero coast. Left at 0630. (Mileage 59604.0). Drove via old R. 95 to Taxco + Iguala. All this country thorn scrub + pretty cut over. Then Cañon de Lopilote - also thorn scrub + organ pipe cactus - bottom of canyon pretty much taken up with agriculture. On to Chilpancingo + S of which pass thru pine-oak down to 3800 feet. Then changes to tropical deciduous. First view Pacific from SE side N of Acapulco. Into Acapulco to buy few groceries then tried to find road to Coyuca. Turn west at last traffic cop on way out of town - west exit - go one block along stream + turn right. go two blocks + turn left at sign to Pie de la Cuesta. Most of the low country is taken up with groves of coconut palms + there is much standing water. Crossed several small ridges where corn fields + thorn scrub. Most of original vegetation is tropical deciduous. Found turnout from road + stopped for night. Area is cut-over tropical deciduous with many Acacia. Collected 3 Aimophila ruficauda + a fledgling Polioptila albilavina while Dick shot 2 Cnemidophorus.

Skinned birds, had supper, + to bed at 1930.

July 31

5 mi. NW Coyuca, 500+ ft., Guerrero, Mexico

Up at 0530. Had breakfast while collecting 2 Aimophila ruficauda. Sky clear + getting light at 0545. Dick went over to canyon to N while I worked around edges + in pastures for Aimophila ruficauda. Found all today in groups of 2 + spaced in the fields. One group of 2

reference
groups

LLWOLF
1964

Journal

July 31

5 mi. NW Coyuca, Guerrero, Mexico

was 2 ♂♂. Did not hear any songs, but did hear several pairs counter-chattering. Groups up to 5 Orange-fronted Parakeets flying overhead. No rain last night but fields are wet.

Back to car + spent rest of day preparing skins. Plenty of small biting flies in late afternoon + mosquitoes at dusk.

Area is well cut-over tropical deciduous. Much of the area is pastures that are coming back into weeds + shrubs. Also large marsh between us + the ocean.

August 1

5 mi. NW. Coyuca, Guerrero, Mexico to 22 mi. S. Chilpancingo, Guerrero, Mexico

Up at 0730 as rain let up. Began raining about 0830. Clouds soon parted + it was steaming hot by 0830. Started to dry things out + then into field. Walked along road + in pasture areas looking for Amphispiza ruficauda. Again found them only in pairs. Heard several ♂♂ (collected) singing pe-chew song. Also chattering + counter-chattering. Birds along road are in Acacia + other tall shrubs. Ground is densely covered with herb layer, but still with some areas where birds can forage on ground. Dick walked along road in other direction (to E). Saw in with an Icterus pectoralis shot just down from camp in large Acacia.

Spent until 1530 skinning birds then packed car + drove into Acapulco. Collected Ruddy Ground Dove from telephone line along road.

After buying few groceries + having ice cream drove N toward Chilpancingo. Around Km. 307 found road off to E (at Limite Superintendencia Iguala sign). This is paved + winds thru pine-oak woodland. Camped beside road about 1/4 mile from highway. Had supper, wrote notes, + to bed. Rain on way from Acapulco + completely overcast tonight.

LLWoff
1964

Journal

August 2 22 mi. S. Chilpancingo, Guerrero to Cuernavaca, Morelos, Mexico

Up at 0600. rained only slightly last night. Had breakfast + then out to collect. Area here at 2400±ft. is mixed pine-oak with oaks in canyons + on wetter ^{west} slopes. A long-leaf pine + several species of oaks.

Understory of shrubs, young pines + oaks, + grass. Grass is 18-24 inches tall + grows bunch-like. Spent until 1100 hunting Rusty Sparrows.

They occurred in pairs - two groups of three (probably includes young) - + were mostly around stream gullies when there were short, shrubby oaks. Heard several squeal ducts by pairs - not by threesomes.

Also saw Laughing Falcon, small groups of Spinus notatus, pairs of Basileuterus rufifrons + apparently family groups of Grace's Warblers.

Back to car where put things out to dry. As soon as Dick returned (1210) we left for Cuernavaca arriving at 1620.

Immediately began to prepare birds. Began raining at 1730 for ~ 2 hour. Finished birds at 2030 + then had supper + to bed after writing notes.

August 3 Cuernavaca, Morelos, Mexico

Up at 0505. Had breakfast + drove out to area for Amphispiza bilineata.

Took road to Tepoztlan from where turnoff for toll road on N edge of town.

Drive out past army shooting range to patch of 2nd growth woods.

There are a few oaks left of what was probably an oak woodland. Now taken over by Acacia + other trees. Dense shrub layer in most spots + grassy areas grazed low by livestock - horses + cows running loose in area during morning.

LL Wolf
1964

Journal

August 3 Cuernavaca, Morelos, Mexico

Spent until 1145 trying to watch Rusty Sparrows. Most seem to have finished breeding, but are still in pairs of adults. Saw one $\frac{3}{4}$ -tailed juvenile + Dick saw at least 2 young in family group. ♂♂ still sing sporadically, but not for extended periods.

Birds here seem to be much the same as in the less arid parts of the Cañon de Lobos - except that Rusty Sparrows are much more common. Dick found nests with young of Orange-billed Nightingale-thrush + Chipping Sparrow. I saw full grown juv. Chipping Sparrows.

Back to Cuernavaca where went to market for food. Then home to skin birds for afternoon. Wrote notes after supper + to bed.

Was clear + partly cloudy in early morning becoming progressively more cloudy. Rained for short time at 1600 + then sun came back out. Rained again at 2000.

August 4 Cuernavaca, Morelos, Mexico

Up at 0500. After breakfast drove out 5 miles E of town on road to Tepoztlán. I spent early part of morning trying to record vocalizations of Rusty Sparrows. Managed to get several squeal sequences + some songs. Playback of squeal brought immediate approach response followed by squeal. Also recorded calls of Phylloscopus cinereus. Then spent 1/2 hour looking for + watching Rusty Sparrows. Found excitedly chirping Melospiza kienneri + located nest containing 2 half-grown young. Spent until 1115 watching nest + adults + a family of at least 3 Rusty Sparrows - 2 adults + 1 full grown young. Watched an Amazilia violiceps chase away other individuals from area of flowers

fascinos
family
groups

repeated
squeal

LL Wolf
1964

Journal

August 4 Cuernavaca, Morelos, Mexico

at edge of road. Not sure if chased A. bergllina or not. Also chased one large black Hymenostern which visited the flowers. Hummer snapped at it for 20-30 yds thru the air before returning to perch.

Dick collected during morning in this 2nd growth shrubby woods. Surprising in this flat country to hear Tamias arens calling. Dick said he saw 3 working along a stone fence + I suspect they also inhabit the numerous lava outcrops.

Saw adult Golden Vireo feeding full grown begging young + Dick collected juvenile Basileuterus rutifrons, Myiapages viridicosta, + Sialia sialis.

Day started clear to partly cloudy, became completely overcast, then cleared again.

Back to city at 1200 where spent rest of day preparing birds, writing notes + to bed at 2000.

August 5 Cuernavaca, Morelos, Mexico

Up at 0800. After breakfast drove out to 5 mi. E of town on road to Tepoztlan. Arrived at 0845. Took net back into woods + set it up after helping Dick hunt for bird he shot. Spent rest of morning until 1100 watching nest of Melospiza heweri - then took young. Saw Amazilia violacea chase a large black bumblebee again. Caught 2 Golden Vireo in net. Dick spent morning collecting. Bright sun all day after sunrise at 0845. Spent afternoon preparing specimens while Dick took car down to have brakes fixed. Had supper, wrote notes, + to bed at 2000.

L. L. Wolf
1964

Journal

August 6

Guernavaca, Morelos, Mexico

Up at 0500. After breakfast drove north on R. 95 - Libre toward Mexico City. Stopped at Km 60 in cut-over pine-oak woodland. I looked for Rusty Sparrows with no luck. The shrub layer is nearly continuous & may be too dense for Rustys. Possibly excluded by Pipilo erythroph. + / or Atlapetes - the Pipilo is extremely abundant. Left at 0830 + drove back toward Guernavaca to Km 64 where we camped last year. This area is 400 ± ft. lower & much more open. Found at least three singing ♂ Rusty Sparrows, but unable to follow any for any time. Drove back to Km 60 at 1030. Watched mixed flock of birds moving thru oaks + Arbutus sp. Composed of Black-headed Grosbeaks as nucleus, with Mexican Chickadees, Olive + Red Warblers, Hairy Woodpeckers, + two woodcreepers. Also seemed to be some flycatchers - Mitrephanes phaeocercus + Contopus pertinax associated. Moved on uphill + found another flock - moving thru low oaks + shrubs. - Again Saltrivanes melanotis was the major species by number. Also Bell's Warbler, Hairy Woodpecker, Brown-throated Wren (2), Olive Warbler (2), Red Warbler (3+), Rufous-sided Towhee (2), + Hutton Vireo (2).

Pick returned to car at 1620 + we drove back to Guernavaca where spent rest of day preparing specimens.

The pine-oak forest at Km-60 has been cut more since last August + there were piles of freshly cut wood + the sounds of more cutting during the morning. In places the shrub layer is dense providing habitat for Pipilo, 2 species of Atlapetes (pilatus + virenticeps) + Toxostoma ocellatum. But it won't be too long before the larger pines + oaks are gone.

LLWolt
1964

Journal

August 6 Guernavaca, Morelos Mexico

Day started clear, but cool. Clouded up about 1030 & was cloudy when we left the pine-oak woodland.

Had supper, wrote notes, & to bed at 2030.

August 7 Guernavaca, ~~SA~~ Morelos, Mexico

Up at 0500 - rained hard during night. After breakfast drove W. to edge of town & took road to E toward Tepoztlán. Stopped in woods around km. 8. I spent morning until 1100 watching Rusty Sparrows while Dick collected. Spent most of time near road where cattle have grazed some of vegetation down & it is easier to watch birds. All birds watched were separated as pairs - except for one group of three that must have included a young bird.

Clear & sunny all morning - clouded up in mid-afternoon.

Back to Guernavaca where went to market & then to apartment.

Spent rest of day preparing birds.

Found nest of hummingbird (Violet-crowned?) about 7 feet up placed on 30° limb at junction of limb & leaf. Branch only 1½ inch diameter. Nest completely covered with lichens & contained 2 eggs.

Had supper, wrote notes, & to bed.

very common
pairs

LL Wolf
1964

Journal

August 8 Cuernavaca, Morelos, Mexico

Up at 0500. Began to rain just as finished breakfast. Regents let up at 0600 so drove out to 5 mi. E town on road to Tepoztlán. Spent until 1215 watching Rusty Sparrows in shrubby 2nd growth woods. Have 7 pairs located, but did not see or hear pair #2 today. Spent most of time watching pairs 1, 4, 6. Saw a sexual chase of some sort but missed the end. Dick went up to pine-oak habitat on R. 95 N. of Cuernavaca to collect.

Rained from 0730 to about 0800. Then remained cloudy until 1030 then sun came out for about 45 min. Then cloudy again until I left.

Spent rest of day preparing specimens. Wrote notes, had supper, & to bed at 2030.

August 9 Cuernavaca, Morelos, Mexico

Up at 0500. After breakfast Dick drove me out to 5 mi. E. Cuernavaca on road to Tepoztlán. Watched Rusty Sparrows until 1200. Not much good activity today. Birds were relatively quiet. Found pair with at least one young (fully grown) near territory #7. Found nest of Catherpes aurantirostris 8 feet up on horizontal limb. Contained one young almost ready to fledge. Also checked Blue Grosbeak nest & it still contained only egg laid yesterday. Found Brown Towhee nest a bit away - contained 2 eggs. ♀♀ sitting on both nests at 0700, but only ♀ Towhee after that. Watched ♀ White-crowned Hummingbird building nest 10 feet up in small crotch. Appeared to be about 1/2 completed.

Cloudy to 0930 with several light showers. Then clear & sunny for rest of day. Prepared specimens in afternoon (8 Dick got + 2 Rusty Sparrows I collected about 1300). Had supper, wrote notes, & to bed at 2030.

LH Wolf
1964

Journal

August 10

Guernavaca, Morelos, Mexico

Up at 0500 after bad night's sleep. After breakfast drive out to 5 mi. E. Guernavaca where Dick left me to watch Rusty Sparrows while he drove back up to the pine-oak locality 7.5 mi. N. of town. I spent until 1215 watching Rusty Sparrows. Concentrated on pairs 1, 4, 2, + 6. Apparently the pair I watched yesterday that had a young out of the nest in pair 6 which moved to SE after I first watched them. Probably due to limited wanderings of the young.

Checked the Blue Grosbeak + Brown Towhee nests. Grosbeak had laid another egg + a Bronzed Cowbird had contributed one. Also found another Violet-crowned Hummingbird building a nest. This makes three nests - one with 2 eggs + two being built. I have found no young birds so the hummers are apparently just beginning to breed - maybe for 2nd time this year?? Saw first Tanager musica for the area. Moved to a mistletoe chup while I was following it.

Clear all morning until 1000 + then began to cloud over on ridges to N + moved south.

Back to town where prepared specimens while Dick took car in to have it fixed + went to market.

Had supper, wrote notes, + to bed at 2030.

LL Wolf

1964

59

Journal

August 11

Cuernavaca, Morelos, Mexico

Up at 0500. After breakfast drove on R. 95 toward Mexico City to 2 mi. N (beyond) Tres Cumbos, Morelos. Stopped here to spend morning working in bunch grass - pine association. I spent most of the morning watching Striped Sparrows - found family group of 6 + several other groups that included juveniles. Also flushed a ♀ from a nest in clump of bunch grass. Also saw nice display of Broad-tailed Hummingbird. Flock of 40± American Robins moved thru the pines + Red Cross Bills - generally in pairs or small groups - flew overhead. Broad-tailed + Violet-crowned Hummingbirds were feeding at red Pereskium.

Day was cold at 0630 + sun not ~~out~~ shining on area yet. Grass wet + cold. Sun up at 0715 + rapidly warmed air up + gradually dried off grass. Lizards (Sceloporus ~~biguttatus~~) first noted at 0835.

Dick collected 28 specimens + then we went out to try for a few more lizards + I took some pictures.

Back to Cuernavaca at 1300 when spent rest of day preparing specimens. Had supper, finished specimens, wrote notes + to bed at 2130.

August 12 Cuernavaca, Morelos to Int. SE. Tlaxcala, Oaxaca, Mexico

Up at 0600. Had breakfast + then packed preparatory to leaving for Oaxaca. Finished at 1030 + went downtown to market. Finally left Cuernavaca at 1215 (autobase 60421). Drove on road to Cuatla thru Cañon de Lobos. There is a new section of road for 47 km. By San Mateo. Hubla - cuts off miserable road. Turned Son San Am. Hwy (Mex 190) +

LL 5814
1964

Journal

August 12 Guernavaca, Morelos to 1 mi. SE. Tamazulapán, Oaxaca, Mexico
Drove to Tamazulapán, Oaxaca arriving at 1730. About 1 mi. SE of town a grassy road leads off to right at base of hills. Drove in for 4 mi. + parked for the night. Went up onto hillside looking for birds before supper. Dick collected a Black-chinned Sparrow. Did not see any Oaxaca Sparrows. Chased Ocellated Thrushes in vain attempt to collect one. I set up camp + skinned the bird which Dick prepared supper. To bed under beautiful, clear sky at 2030. Heard Great Horned Owl call soon after going to bed.

August 13 1 mi. SE Tamazulapán to Oaxaca, Oaxaca, Mexico

Up at 0515. Had breakfast as it was getting light. Both Dick + I then out to collect. Spent until 1100 hunting in hard leaf + thorny ^{chaparral} ~~chapparral~~. Characteristic plants included a holly-type, Arctostaphylos sp. + Quercus rugosa + several other oaks. Vegetation averaged 6-8 feet tall with some up to 10 feet. Essentially covered the hillside. Substratum was rocky + there were scattered bare areas of rock outcrop. ~~Path~~ ^{Thin} parts of area facilitated walking. Found only one pair of Oaxaca Sparrows + took the ♂. 50± yds. in either direction along the stream bottom I searched in adult Rufous-crowned Sparrows. Oaks may have been more predominant when took Arctostaphylos, but not much. Possibly the 2 species hold interspecific territories. Dick reported seeing 5 Oaxaca Sparrows on a hillside above a streamgully.

Located a flock of 10+ Bl.-eared Bushbirds + "schmooed" them.

Arctostaphylos
habitat

not if
refuge

LLW 51f
1964

Journal

August 13

1 mi. SE. Tamazulapán, to Oaxaca, Oaxaca, Mexico

Accompanying them - or attracted by commotion - were 2-3 Polioptila caerulea. Also squawked in 3 Ocellated Thrashers + collected one.

After weighing birds + drying equipment packed car + drove on to find shade in which to skin. Prepared specimens until 1700 + then drove to Oaxaca City. Passed thru light rain soon after starting out + before arriving at pine-oak.

Took room at Oaxaca Courts. To bed after supper.

August 14

Oaxaca, Oaxaca, Mexico

Up at 0500. Drove to km. 59.5 - just beyond - to locality 4 1/2 mi. SW. Matatlan. This is just after one leaves the valley of Oaxaca + begins climb into mountains. Habitat is rocky hillside covered with hard-leaved chaparral with manzanita, Quercus rugosa, + other shrubs. Tallest trees are 10-12 feet. Some of the area is cut-over for cornfields + several streams have cut rather deep gullies. Walking along paths used by Mexicans makes collecting relatively easy. Spent early part of morning above road where collected Oaxaca Sparrow ♂ that came in to "squawk" + then a ♀ Bridled Sparrow in shrub thicket near cornfields. Then dropped below road + worked along stream bottom. Here found group of 3 Slaty Vireos that apparently came into "scurrs". Collected ♂ that was foraging in 20 foot oak tree. 2 others watched uphill + could hear one calling. Chased it uphill + then collected this calling juvenile from an Acacia just above where shot ♂. Followed another stream bottom + shot ♀ Oaxaca Sparrow from oak - dominated hillside after she came downhill in response to "scurrs".

testicula
habitat

notebook

LL Wolf
1964

Journal

August 14

Caxaca, Oaxaca, Mexico

Spent ~ 1/2 hour trying to collect ♂ Beautiful Hummingbird after finding perches frequented.

Left area at 1100 driving back to Oaxaca City. Collected a Loggerhead Shrike from electric lines ^S of El Tale in farmland. Stopped at El Tale for 5-10 minutes. Just ~~south~~ ^{north} of El Tale found singing ♂♂ of Aimophila ~~litterii~~ in cultivated areas - corn, grassy pasture, + alfalfa. Collected 3 ♂♂ - one on ground in weedy (3-4 inches tall) cultivated field.

Then back to Oaxaca City where spent until 1800 preparing specimens. Then to market for food for next several days. Had supper at hotel opposite square. Back to Hotel Margarita where to bed at 2130.

August 15 Oaxaca, to 16.5 mi. 3a Matatlan, Oaxaca, Mexico Km. 616 on Pan Am Hwy.

Up at 0545. Packed + drove SW on Pan Am Hwy to km. 605. Stopped here on steep-sided hill sides to hunt Bridled Sparrows. On upper slopes are open oak woods that are being cut-over by the natives. Lower hill sides are dominated by Acacia. Stream gullies have lush, deciduous trees forming essentially closed canopy. Bridled Sparrows are most abundant where tree + shrub layer form nearly to any fully closed canopy. Heard several chattering pairs + Dick reported that they have some wing fluttering associated with chatter.

Drove on to Km. 607 where hunted Acacia-dominated hill sides for Bridled Sparrows - found family group including one fledgling. Had full grown young Rufous-crowned Sparrows at

LL Wolf
1964

Journal

August 15 Oaxaca to 6 1/2 mi. SW Matatlan, 4200 ± ft., Oaxaca, Mexico km 616
both localities. Dick collected 2 White-faced Gnatcatchers with his .22 pistol.

Drove on to km 616 where took 2 tire-track-road into little valley. Camped here last year. Area is dominated by Acacia + Opuntia. Mostly short-grazed grass on valley floor + rocky hillside.

Prepared birds during the afternoon. Wrote notes, had supper, + to bed at 2015.

August 16 16 1/2 mi. SW Matatlan, 4200 ± ft., Oaxaca, Mexico km 616
Up at 0515. Not yet completely light. Had breakfast + then I went off to record Bridled Sparrow vocalizations. Spent until 0830 recording. Was able to get some songs from a lone ♂ uphill from the highway. Then found 3 pairs with adjacent territories + obtained some poor recordings of the chatter duet. (See species acc'ts.). Then spent from 0900-1200 watching several pairs of Bridled Sparrows. Most of time watched foraging by pair which had a full grown young which they fed at least twice.

Began to rain about 1215 + rained intermittently all afternoon. Spent afternoon preparing specimens + then went out to collect again only to get caught in a downpour. Fixed tent so as to minimize leaks tonight.

Had supper after writing notes + to bed at 2000

LLWOLF
1964

Journal

August 17 16 1/2 mi. SW Matatlan to Tehuantepec, Oaxaca, Mexico

Up at 0520. After breakfast I went out to record Bridled Sparrows which Dick collected. Bridled Sparrows do very little chattering in dust, but the ♂ spends a fair amount of time singing from elevated - usually dead - perches. ♀ sometimes comes up into nearby shrub & calls also.

Packed up car & drove south in completely overcast weather to 6 1/2 mi. SW. Totolapan where stopped to collect Bridled Sparrows. Area is Acacia + cardinalis cactus - dominated hillsides. In places the canopy is nearly closed. It is very dry & there is little herb layer on the rocky hillsides. Found 3 family groups with one young each. Young stub-tailed, "2 tail", & full grown. One ♀ had recently finished brood patch & was undergoing postnuptial ^{body} molt, but the ovary was enlarging for a 2nd breeding attempt. Also got a ♀ with recently ruptured follicles.

Drove on along Pan Am Hwy & stopped by bridge to skin. Were soon forced by rain to leave. Ran into intermittent rain for here until dropped onto coastal plain NE of Tehuantepec. Arrived at Tehuantepec at 1730 & took room at Hotel Tehuantepec. Finished skinning birds, including a roadside Hawk Dick shot enroute at 2030. Then to supper & wrote notes.

Finally to bed at 2200 in hot, humid weather.

LL Wolf
1964

Journal

August 18

Tehuacan, Oaxaca, Mexico 1000 ft.

Up at 0530. Rained during night. Drove out to Tani. E. town on Pan Am. Hwy where parked on small side road. Had short breakfast + then I went out to watch Sunichrast Sparrows while Dick went out collecting. Area is closed canopy thorn scrub forest which now has dense herb layer resulting from rainy season moisture. Where has been cut Acacia is dominant, but does not form closed canopy + has good grass herb layer.

Sunichrast Sparrows are common in this habitat - especially the closed canopy scrub. Found one pair that had major part of territory in Acacia + grass area. Spent until 1000 watching this pair - ♀ later carried nesting material to close to road, but unable to find nest. ♂ actively singing until 0830 + then quiet. ♀ spent most of time foraging on ground + preening on perches just above ground.

Day started cloudy to partly overcast, but cleared by 0830 + was hot + sunny. The wind came up at 0800 + remained strong most of day.

Back to hotel at 1000 where spent rest of day preparing specimens. Dick took car to have oil changed + grease job (\$10.00). Also went to market.

Had supper, wrote notes, + to bed at 2000.

unichrast
habitat

unichrast
habitat

LH Wolf
1964

Journal

August 19

Tehuantepec, Oaxaca, Mexico

Up at 0515. Drove out to 2½ mi. E. of town where stopped for breakfast along road. I stayed here to observe Aimophila ruficauda + Dick went back to where we collected yesterday. The area I worked in is a grassland with shrub + tree cover which at times reaches closed canopy, but averages 50% or less closed. Most of the trees are species of Acacia. There are some Celtis, few Prosopis, plus other legumes. The grass forms a closed cover + there aren't many weeds. Apparently there are few cattle grazing here + the grass is 6-12 inches tall. ruficauda was not common anywhere, but did occur at edges of Acacia - etc. thickets + out into grassland. Seemed to take refuge in thickets so may occur in more open areas than observed. Sturnella heard calling from areas where closed canopy thickets reached larger proportions (in area) + Acacia was less dominant.

Partly cloudy + shady until 0800 when sun came out. Wind picked up by 0730 + was 5-10 mph + gusts to 15+ by 0830. Saw skink out + active at 0700.

Back to town where went to market. Spent afternoon preparing specimens. After supper Dick was going out night driving when discovered that car wouldn't start. Lights seem to be low + the starter doesn't make contact. Get a Texan here to push us to get it started.

August 20

Tehuantepec, Oaxaca, Mexico

Up at 0515. Drove out to 2½ mi. E of town where had breakfast along the road as it was getting light. I went out into Acacia grassland with Shown sent thickets to watch Aimophila ruficauda. This is same

LL Wolf
1964

Journal

August 20

Tehuantepec, Oaxaca, Mexico.

area where watched yesterday. Followed one pair for 4-hours. Mostly able to observe only disturbed activity as they move to tops of trees + shrubs as I approach. Began to rain at 0830. Bird activity dropped noticeably + I had difficulty following the birds. Still raining when I left at 1000 - but stopped soon after.

Dick collected 13 birds - including 2 Sunichrist Sparrows + one Aimophila ruficauda. Collected a Frog sp. from electric lines. A group of three. Another species of swallow was roosting (20-30) on wires 40-50 feet away. If this is a Burys Martin I have seen no adult ♂♂ although 5-10 have been seen the last two days.

Back to hotel where spent rest of day preparing specimens + cleaning some equipment. Tried to identify some plants, but unsuccessful.

Had supper after writing notes + to bed at 2000.

August 21

Tehuantepec, Oaxaca, Mexico

Up at 0500. Rained from 0230 + was still raining when we got up. Caught a large toad (Rhombophryne?) as we left the hotel. Drove out to 7 mi. E of town where had breakfast in light rain. I left Dick here + he was going to walk along power lines collecting. I drove back to 2 1/2 mi. E. where spent rest of morning until 1015 drawing (or trying to observe) Aimophila ruficauda. Finally found a nest with three eggs. Also found nests of Common Ground Dove (2), Arca Dove (1), + Groove-billed Ani (1). Ani nest had three young that were leaving. They could clamber thru the tree + fly a short (3-4 feet) distance.

LH Wolf
1964

Journal

August 21 Tehuantepec, Oaxaca, Mexico

In early morning as drove out saw numerous Parragues on road. During morning flocks of 2-10+ Orange-fronted Parakeets flew over almost continuously. Saw 3 flocks of 200+ Dickcissels each. Boat-tailed Grackles arrived + were feeding on ground in Acacia-grassland.

Rain stopped about 0900 + sun came out for short while. Hunted for lizards from 1020 to 1050 while waited for Dick to arrive. Caught one Gecko (sp?) + saw numerous scorpions under the rocks. Went in to town to market + then back to hotel. Spent rest of day skinning birds, making few plant specimens.

Wrote notes, had supper, + to bed at 2030.

August 22 Tehuantepec, Oaxaca, Mexico

Up at 0500. Did not rain during night. Drove out to 2½ mi. E of town to observe + record Amphispiza ruficauda. Dick went out to collect. I recorded + put notes + solo chatter of several pairs, including those of pair with nest. Then went out collecting. Found another A. ruficauda nest with 2 eggs. Collected 2 birds from there + Dick later collected the ♀ as she flushed off. This is where I earlier in the week flushed 3 - maybe 6 - birds + followed them for short time.

Took pictures of habitat, cactus, + flowers.

Spent rest of day preparing birds. Clear, hot, + sunny all day. Wrote notes, had supper, + to bed at 2030.

Amphispiza
nest

LH Wolf
1964

Journal

August 23 Tehuantepec to 16½ mi. SW, Matatlan, Oaxaca, Mexico km. 666

61087.0 - left Tehuantepec at 1430.

Up at 0500. Had breakfast along road 2½ mi. E. Tehuantepec. I then went out to record Sumichrasti Sparrows while Dick went out to collect. Obtained recordings of duet + solo chatter + trill song. First bird that I recorded was following another back + forth - probably a nest-building ♀. Then out to try to collect group of three Aimophila ruficauda that attend nest of pair SW. Unsuccessful. Dick managed to collect 10 birds including 4 + 2 ruficauda that were in just about the same area. - Day hot, ground wet with dew early in morning.

Back to hotel + prepared specimens. Packed car + left at 1830.

Stopped in town for groceries. Heard last sumichrasti sparrow, 62 miles NW of Tehuantepec along Pan Am Hwy. Heard first Bridled Sparrow just 2 miles earlier. Stopped in pine-oak (km. 690) + Dick tried to collect some lizards. (1615). I bided + saw Acorn Woodpecker (5), Bridled Sparrow (3), Rusty Sparrow (2), Scrub Jay (3), Rufous-crowned Warbler (4).

Arrived at km 666 at 1800. Sounds like timing mechanism is going bad. Had supper after writing notes + setting up camp. Then to bed at 1945. Had Glauadium Brasilianum around tent about 2000. Not able to find it when Dick went out with light

August 24 16½ mi. SW Matatlan, to 1 mi. SE. Tamazulapam, Oaxaca, Mexico

Up at 0500. Rained for several hours beginning at 0030 last night. Full moon + partly cloudy - low clouds - when got up. Had breakfast

placental
sumichrasti
distribution

LL Wolf
1964

Journal

August 24 16 1/2 mi. SW. Matatlan to 1 mi. SE. Tamazulapan, Oaxaca, Mexico
 + then I went out to observe Bridled Sparrows while Dick went out collecting. I walked along Pan Am. Hwy toward km. 615 + spent until 0900 on hillside on E side of hwy. Observed activities of each of 4 pair for short time. Usually get one short opportunity to watch soon after locating pair + then they disappear. Sun did not hit hillside where I was until 0800 + then it was partly cloudy so shaded part of time. Still water on leaves when left at 0900. Grasshoppers did not become noticeable until after sun came out. Birds were all damp during morning.

Back to camp at 0915 where put wet things into sun to dry.

Dick returned about 1000 with nine birds including a group of 3 adult-plumaged Bridled Sparrows. Prepared specimens until 1215 as rain clouds approached from NE. Packed up car + drove for Oaxaca. At first thought melody of car was fixed, but it turned out that the protective casing over the clutch had been dented + was rubbing on the flywheel. Smoking as we stopped to fix it. Two Mexicans in a jeep stopped + loaned us a wrench + hammer. Pounded out the dent, replaced the casing + were off. Stopped in Oaxaca City for groceries + a Sundae then on (1500) to N. Arrived at Tamazulapan campsite (same as night of Aug. 12) at 1730. Had supper, wrote notes, + to bed. There is a 5-10 mph wind + the clouds surrounding us on the hills suggest rain tonight.

mylaris
3 in group

L. Wolff
1964

Journal

August 25 1 mi. SE. Tamazulapán, Oaxaca to Cuernavaca, Morelos, Mexico

Up at 0800. Rained lightly during night. Cool + cloudy before dawn. Had breakfast + then into scrub oak - chaparral (see Aug. 13) to try to collect Oaxaca Sparrows. Cloudy + cool most of morning + birds not very active + few respond to "schuss." Had Ocellated Thrasher + Reynolds-crowned Sparrow by 0830. Began raining at 0845 to about 1000. Bird activity almost nil. Started back for car + arrived at 1030 - tried with only the two birds. Cleared another Reynolds-crown on the hillside above the car. Dick returned at 1100 with 7 birds. While preparing the wine collected 2 ♀ Calothrix (pulcher?) that were feeding at red-flower Penstemon on hillside + along road. Both ♀♀ used some of the same flowers. Heavy cloud layer disappeared + sun came out strong.

Finished skinning at 1400 + left for Cuernavaca. Stopped 2 mi. N Tamazulapán for 20 minutes to try to find a Oaxaca Oriole: no luck. Just across the border (Oaxaca - Puebla) in Puebla (1-2 miles) stopped in dense oak - chaparral area + schussed few times. Area looks very similar to where found Oaxaca Sparrows near Tamazulapán + likely they will be found here. - may be locale for type if it actually was taken in Puebla.

Elevation when collected 9 mi. SE Aguacate Matamoros (alt 1100 is 3900 ± ft. thru Matamoros at 1730. Finally arrived in Cuernavaca at 2000. Took 10 min at Villa Internacional. Had supper, wrote notes, + to bed at 2130.

Calothrix
habitat?

LH Wolf
1964

Journal

August 26 Guernavaca, Morelos to 5 mi. N Tenancingo, Mexico, Mexico ^{7700 ft.}
Up at 0500. Drove out to Cañon de Lobos where had breakfast as it was beginning to get light. Dick went out collecting while I tried some playback experiments using "tut" calls of Ammodramus ruficauda lawrencei to test their effect on A. ruficauda acuminata. 5 groups reacted positively & were attracted to recorder. Only two approached closer than 10 feet & one bird sat on recorder. One of a pair attacked the specimen of A. r. lawrencei that I had put in bush near recorder & went to ground when model fell & continued pecking. Dick returned with 11 birds & we spent until 1230 preparing skins. Drove back into Guernavaca where had car worked on & went to market. Left town for Taxco at 1400. At Taxco played tourists in a silver shop. Then drove back 14 miles toward Guernavaca where picked up Hwy 55 north to Toluca. Outside of Tuxtlan de la Sal to north in wedy fields & sitting on fences saw Botteri's Sparrows. Dick collected 4 Sceloporus from a roadcut bank several miles north of Tenancingo. Found small road past off hwy & drove back in 100+ yds where camped for night. Wrote notes, had supper, & to bed at 1930.

August 27 5 mi. N. Tenancingo, Mexico to Zamora, Michoacan, Mexico

Up at 0545. Had breakfast, broke camp & drove north. Bought gas in Toluca then turned west on Mex. 15 for Guadalajara. In the fields - overgrown, wedy pastures bordering cornfields - east of Tuxtlan heard Botteri's Sparrows singing commonly. Stopped & collected 4 including one juvenile. Watched an adult with food in its mouth for 15-20 minutes, but it would not go to a nest.

HL Wolff
1964

Journal

August 27

San N. Tenancingo, Mexico to Zamora, Michoacan, Mexico

Finally tried to collect it + missed. Drove on to km. 248 where parked beside road. While I skinned the sparrows Dick went out to collect in the pine-dominated pine-oak woodland. He got a Vireo + a Hairy Woodpecker. After skinning them we drove on toward Guadalajara. Just outside (W) of Morelia Dick collected 2 Sceloporus + a racer from a stone fence. As left Zacapu it began to rain so decided to stay in hotel. Took room at Hotel Mendoza in Zamora. Got haircuts + cleaned up. Wrote notes, had supper, + to bed.

August 28

Zamora, Michoacan to San Blas, Nayarit, Mexico

Up at 0500. Drove toward Guadalajara + had breakfast along the road. Arrived Guadalajara at 0900 + had car serviced (62126). Then to market. Left town about 1230. Drove to San Blas arriving at ¹⁸⁰⁰~~0600~~ (1700 their time).

Around Lago de Chapala noted large flocks of swallows sitting on the electric wires + foraging at about 5-20 feet up. Seemed to be many small insects hitting car windshield in this area + probably accounts for the concentration.

Met Sam McGinnis + Charles Brown in San Blas + plan to stay one or two days with them. Both are working on temperature regulation + activity of Gonosaurs + Iguana.

Had supper + wrote notes before going to bed.

L. Wolf
1969

Journal

August 29 San Blas, Nayarit, Mexico

Up at 0615. Had breakfast + drove just Egtor + walked up to fort. Took some pictures of town + swamps. Drove out to Playa Matanchen + watched shorebirds. Several Sanderlings were showing aggression toward nearby individuals. Approach in horizontal position with bill pointing down at $10^{\circ} \pm$ below horizontal. Back feathers fluffed. Wings slightly held out. Several chases were for 10+ yds. + involved short flights. Why chase of one bird so far with others around?? Picked up a long-dead Brown Pelican + saved the skeleton.

In the afternoon took a trip thru the mangroves to a fresh water spring which supplies much of the water for the swamps near town. Saw few birds other than Common Egrets + Green Herons. Clouded up by mid-afternoon but no rain.

Wrote notes, had supper, + visited the town. Plan to leave for Sonora early in the morning.

August 30 San Blas, Nayarit to 16 mi. N. Navajoa, Sonora (km. 1812), Mexico

Up at 0445. Packed car + left for Sonora. Soon after arriving on main highway north stopped for breakfast. Spent rest of day driving. Became more arid as went north. In Sonora it is much drier than at this time last year + the herb layer vegetation has not made much appearance + the ground seems almost as bare as I remember it prior to the summer rains in 1967.

Was cloudy in early morning + we passed thru light sprinkles in Nayarit. Cleared up + was hot + sunny. Ran out of gas < 1 mile S. of Navajoa. Arrived at camping site at 1700. Went out + took pictures. Wrote notes, had supper + set up camp, then to bed.

improves
habitat

LHW014
1964

Journal

August 31

^{Km 1812}
16 mi. N. Navajoa, to 30 mi E. Hermosillo, Sonora, Mexico

Up at 0515. After breakfast Dick went out to collect Rufous-winged Sparrows while I tried some play-back experiments using a song + a model of Aimophila ~~sumichrasti~~. Although I tried the play-back twice (for 10+ minutes each time) in territories of 2 singing ♂♂ I obtained no obviously positive responses. Both ♂♂ went to tops of trees + sang soon after I retreated from the area, but did not approach the recorder (or model). As other ♂♂ were singing actively in adjacent territories I consider the reaction of 2 tested ♂♂ to be routine + not prompted by the experiment.

I then collected Carpalis for < 1 hour + obtained 12 birds - all within 200+ yds of camp in semicircle. Others still left in same area when I stopped collecting - This gives some idea of the remarkable abundance of these birds in this mesquite woodland-cholla habitat. Together we collected 24 Carpalis plus an oriole + ~~Painted~~ Painting. These by 0830. Skinned until 1200 when packed car + headed north. Seen extremely hot, but ♂ Carpalis sitting in exposed positions at tops of mesquites singing.

North of Guaymas had tin trouble so drove slowly on bad tin back into Guaymas when bought a new tin for \$37. Had supper in Guaymas before driving on to Hermosillo where arrived about 0745. Bought gas then took gravel road - 5 miles S of town to E (toward La Colorado). Drove to near km 51 where camped for night.

indicate to
apparently
playback.

polls singing
at midday

LLWOLF
1969

Journal

Sept. 1

30 mi. E. Hermosillo, Sonora, Mexico to Tucson, Pima Co., Arizona

Up at 0440 after bad night's sleep - ants, heat, + punctured air mattress. Had breakfast + drove east to E. of Mazatan ~ 10 miles. Then another fire went out leaving us with 80 miles of rough road + no spare. Changed tire + continued on to km. 114 - 20 mi. E. Mazatan where parked car along road + went out to collect 5-striped Sparrows. This is same area as last year. At this time a year ago the ground layer vegetation was so tall + thick as to make working through it difficult. This year patches are 4-5 feet + raining pollen, but generally the area appears to be drier than last year. A local boy told us that they had the "usual" amount of rain in August, but would not elaborate.

5-stripes were relatively common + most easily located by driving down singing ♂♂. Singing dropped off by 0800 + then only sporadic song activity. I encountered only one juvenile all morning (collected). Collected a ♀ chirping excitedly while carrying food in her bill. Several adults showed beginnings of the post-nuptial molt + neither ♀ showed evidence of a second brooding. From the food-carrying bird this was expected + the other likely flushed off a nest (from Dick's report of her behavior). So hard to tell if 2nd brood started yet or not. Perhaps reduced activity due to drier conditions.

Also saw family groups of Cardinals + Varied Bunting. Prepared birds until 1400. Had lunch (of sorts) as drove out to W toward Hermosillo. Then headed north for border. Finally

5-striped
habitat.

5-striped
carrying food

5-striped
brooding

L. C. Wolff
1964

77

Journal

Sept. 1 30 mi. E Hermosillo, Sonora, Mexico to Tucson, Pima Co., Arizona
arrived about 2145. Had no trouble on Mexican side + little
chub on U.S. side. Were held back for short time by pressed
plant specimens. Officials finally let them in without fumigation +
import permits + I told them they were to be destroyed after
identification. After short supper drove north to Tucson where
spent night with J. Trammontano + J. Ambrose - graduate students
at Univ. of Arizona. To bed at 0030.

Sept. 2 Tucson, Pima Co., Arizona
Up at 0645. Spent day in Tucson. While car was being
serviced I examined + measured the Aimophila specimens
in the Univ. of Arizona collection. Steve Russell, the new
ornithologist here, was attending the AOC meetings in Kansas
+ would not return until Saturday. Picked up mail in Fool
Dept. Spent evening relaxing + packing for trip home starting
tomorrow morning.

Sept. 3 Tucson, Pima Co., Arizona to Arcadia, Los Angeles Co., California
Left Tucson at 0730. Spent whole day driving - very hot
causing car to boil over. Spent night at Dick Sage's home.

Sept. 4 Arcadia, L.A. Co., to Berkeley, Alameda Co., California
Uneventful trip north. Arrived in Berkeley at 1430.
Mileage - 64600 - trip slightly over 10000 miles.

Wolf, L. L.

1963-1964

Species Accounts
(exclusive of
Aimophila)

LLW/S

1963

23 June 63

Molino Basin - Species List

Aimophila	ruticeps - 8	Spinus	psaltria - 6
Icterus	parisorium - 2	Phainopepla	nitens - 1
Mimus	polyglottos - 2	Aquila	chrysaetos - 1
Salpinctes	obsoletus	Zenaida	asiatica - 1
Calypte	costae - 7	Tyrannus	cassini - 4
Carpodacus	mexicanus - 10	Cynanthus	latirostris - 2
Lophortyx	gambeli - 10	Polioptila	caerulea - 1
Icterus	cucullatus - 2		

June 24

0.6 mi. N. Benson Hwy., Wilcox Rd., Tucson, Pima Co., Arizona -

Roadrunner - 1

Mourning Dove - F.C.

Wh-winged Dove F.C.

Ladder-backed Woodpecker - 2

Ash-thr. Flycatcher - 4

Raven, wh-necked - 1

Brown Towhee - F.C.

Blue Grosbeak - 10

Polioptila sp. - 1

Pyrrhuloxia - 4

Verdin - Common

Cactus Wren - common

Curve-billed Thrasher - F.C.

Mockingbird - 2

Lucy Warbler - 6

Br.-headed Cowbird - 5+

Gambel Quail - F.C.

House Finch - F.C.

Cardinal - 10

Rufous-winged Sparrow - 10+

LLW818
1963

Species List

June 25 - 0.6 mi. N. Benson Hwy. Wilcox Rd. Tucson, Pima Co., Arizona

Turkey Vulture - 2	Bl. - tailed Gnatcatcher - 3
Cambel Quail - 10+	Cactus Wren - 10+
Mourning Dove - 20+	Curve-billed Thrasher - 5+
Ash-thr. Flycatcher - 4	Brown Towhee - 4
Gilded Flicker - 2	Blue Grosbeak - 1 ♂
Rufous-winged Sp. - 15+	Verdin - 5+
Lucy Warbler - 4+	

LL Wolf

1963

Species List

July 5

20 mi. NW. Cliff, Grant Co., New Mexico

Rain Creek.

Turkey Vulture - 1	Canyon Wren - 5+
Band-tailed Pigeon - f.c.	Robin - 6+
Red-shafted Flicker - 2	Hermit Thrush - 4
Acorn Woodpecker - 6	Blue-gray Gnatcatcher - 8
Hairy Woodpecker - 4	Hutton Vireo - 4
Ash-breasted Flycatcher - 10	Solitary Vireo - 3
Cassin Kingbird - 4	Bl. thr. Gray Warbler - f.c.
Crow Flycatcher - 1	Grace Warbler - 4
Western W. Tanager - 4	Painted Redstart - 3
Violet-green Swallow - f.c.	Scott Oriole - 2
Scrub Jay - 12	Br.-headed Cowbird - f.c.
Mexican Jay - 8	Western Tanager - 2
Bridled Titmouse - f.c.	Mockingbird - 2
Common Nighthawk - f.c.	Hepatic Tanager - 6
Bewick Wren - f.c.	Bl.-headed Grosbeak - 6+
Indigo Bunting - 1	House Finch - f.c.
Lesser Goldfinch - f.c.	Rufous-sided Towhee - common
Rufous-crown Sparrow - f.c.	Lark Sparrow - 5
Bl-thr. Sparrow - 2	Bl.-chinned Sparrow - common.

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1963

Species List

July 6

8 mi. N. Cliff, Grant Co., New Mexico

Mogollon Creek on Gila River.

Turkey Vulture - 5
Sparrow Hawk - 10+
Gambel Quail - 10+
Band-tailed Pigeon - 3
Mourning Dove - f.c.
Yellow-billed Cuckoo - 1
Red-shafted Flicker - 2
Acorn Woodpecker - 1
Ladder-backed Woodpecker - 3
Western Kingbird - 6+
Cassin Kingbird - f.c.
Wied Crested Flycatcher - 2+
Ash-thr. Flycatcher - f.c.
Black Phoebe - 2
Traill Flycatcher - 3
W. W. Pewee - f.c.
Vermilion Flycatcher - f.c.
House Finch - f.c.
Albert Towhee - 8+

Rough-winged Swallow - 10+
Mexican Jay - 4+
Bridled Titmouse - 6+
Whi.-Gr. Nuthatch - 2
Bewick Wren - f.c.
Mockingbird - 6+
Lucy Warbler - f.c.
Yellow Warbler - f.c.
Yellow-throat - 2
Yellow-cr. Chat - common
Hooded Oriole - 4
Bullock ^{Oriole} - 3 f ♂♂
Br.-headed Grosbeak - 12+
Summer Tanager - f.c.
Cardinal - 4
Bl.-headed Grosbeak - 2
Blue Grosbeak - f.c.
Lesser Goldfinch - f.c.
Desert Sparrow - 5+ ♂♂

July 6

1 mi. E. Cliff, Grant Co., New Mexico

Cliff - Gila Bridge

Gr. Blue Heron - 5
Green Heron - 2
Mallard - 2
Turkey Vulture - 5
Black Hawk - 1

Sparrow Hawk - 2+
Killdeer - 15+
Spotted Sandpiper - 6 1 gr. young.
Mourning Dove - common
Yellow-billed Cuckoo - 1

Red-shafted Flicker - 4
Gila Woodpecker - 2
Western Kingbird - f.c.
Ash-thr. Flycatcher - f.c.
Black Phoebe - 2
Say Phoebe - 2
Trail Flycatcher - 4+
W. W. Pewee - f.c.
Vermilion Flycatcher - 4+
Rough-winged Swallow - 6
Common Raven - 2
Bridled Titmouse - 2+
Blue Grosbeak - f.c.
House Finch - f.c.

Bewick Wren - f.c.
Mockingbird - 5+
Robin - 2
Lucy Warbler - 4+
Yellow Warbler - f.c.
Yellow-throat - 3+
Yellow-br. Chat - f.c.
Western Meadowlark - 3+
Redwing - 15+
Bullock Oriole - f.c.
Bo. headed Cowbird - f.c.
Summer Tanager - f.c.
Indigo Bunting - 1 pair + 1 ♂

Species List

July 5

Little Walnut Creek Campground
area, n. of Silver City, Grant Co.

Turkey Vulture - 2	Mexican Jay - 20+
Gambel's Quail - 1	Common Raven - 5
Mourning Dove - 5	Mtn Chickadee - 2
Common Nighthawk - 2	Plain Titmouse - 10
Hummingbird sp - 3	Bushtit - 2
Redshafted Flicker - 3	Whitebreasted Nuthatch - 3
Hairy Wdpr - 3	Bewick's Wren - 2
Cassin's Kingbird - 4	Mockingbird - 8
Ashthroated Flyc - 10+	Robin - 3
Gray Flyc - 5	Western? Bluebird - 6
Western Wood Pewee - 2	Bluegray Gnatcatcher - 5
Violetgreen Swallow - 15	Solitary Vireo - 2
Blk-throated Gray Warbler - 15	Indigo Bunting - 2
Grace's Warbler - 1	Housefinch - 4
Brownheaded Cowbird - 8+	Rufous-sided Towhee - fc
Western Tanager - 1	Brown Towhee - 2
Hepatic Tanager - fc	Rufous-crown sp - 5
Blue Grosbeak - 3	Chipping Sp - fc

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1963

Species list

July 3 Signal Mountain (Peak) Grant Co., New Mexico

- | | |
|-------------------------------------|---|
| Turkey Vulture - 2 | House Wren - 2 |
| * Turkey - 8 (6 - 5 day old poultz) | Robin - 1 |
| Band-tailed Pigeon - f.c. | Hermit Thrush - common |
| Broad-tailed Hummingbird - f.c. | Western Bluebird - 2 |
| Red-shafted Flicker - 5 | Audubon's Warbler - f.c. |
| Hairy Woodpecker - 3 | Grace Warbler - 4 |
| Downy Woodpecker - 1 | * MacGillivray's Warbler - 5 |
| Western Flycatcher - f.c. | Red-faced Warbler - 4 |
| Stellar Jay - 1 | Western Tanager - 4 |
| Mt. Chickadee - f.c. | Bl-headed Grosbeak - f.c. |
| Pygmy Nuthatch - f.c. | * Rufous-sided Towhee - 6 + |
| Red-br. Nuthatch - 1 | * ^② Gray-headed Junco - f.c. |
| wh-br. Nuthatch - 2 | |
| Brown Creeper - f.c. | |

July 4 m. nw. Silver City, Grant Co., New Mexico

- | | |
|---|------------------------------|
| Turkey Vulture - 3 | Raven - 4 |
| Band-tailed Pigeon - 2 | Plain Titmouse - 10 + |
| Mourning Dove - 5 + | Bridled Tit - 8 |
| Hairy Woodpecker - 2 | Bush-tit - 20 + |
| Ash-throated Flycatcher - 4 | Bewick Wren - f.c. |
| Say Phoebe - 1 | Canyon Wren - 2 |
| Horned Lark - 1 | Mockingbird - f.c. |
| Mexican Jay - 2 | Western Bluebird - 4 |
| Scrub Jay - f.c. | Blue-gray Gnatcatcher - f.c. |
| * young ^① eggs ^② young in nest. | |

Solitary Vireo - 4
Bl-thr. Gray Warbler - 8
Grace Warbler - 1
Scott Oriole - 2
Br. headed Cowbird - 10
Hepatic Tanager - 4
Rufous-crowned Sp. - f.c.
Bl-thr Sparrow - 4
Bl-chinned Sparrow - f.c.

Bl-headed Grosbeak - 4
House Finch - 5
Lesser Goldfinch - 3
Rufous-sided Towhee - common
Brown Towhee - 6
Lark Sparrow - f. closely
Cassin Sparrow - 1
Chipping Sparrows - 15+

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Species List

July 2 - Redrock, Grant Co, New Mexico - Gila River

- | | |
|------------------------------|------------------------------|
| Great Blue Heron - 1 | Bl.-chinned Hummingbird - 2 |
| Turkey Vulture - 4 | Red-shafted Flicker - 4 |
| Mexican Black Hawk - 1 | Gila Woodpecker - 10+ |
| * Sparrow Hawk - 3 | Acorn Woodpecker - 5 |
| * Gambel Quail - 12 | Ladder-backed Woodpecker - 5 |
| Ring-necked Pheasant - 4 | Western Kingbird - 4 |
| Black Francolin - 2 | Cassin Kingbird - 10 |
| Killdeer - 3 | * Ash-thr. Flycatcher - 12+ |
| Wh-winged Dove - 5 | Black Phoebe - 4 |
| Mourning Dove - f.c. | Trail Flycatcher - 4 |
| Yellow-billed Cuckoo - 4 | Western Wood Pewee - 5 |
| Roadrunner - 1 | Vermilion Flycatcher - f.c. |
| * Barn Owl - 3 | Horned Lark - 3 |
| * Screech Owl - 3 | Rough-winged Swallow - 5 |
| * Elf Owl - 4 | * <u>Crows</u> sp. - 5 |
| Great Horned Owl - 1 | * Verdin - 5+ |
| Poor-will - 1 | Wh-Gr. Nuthatch - 8 |
| Common Nighthawk - 2+ | * Bewick Wren - f.c. |
| * Lesser Nighthawk - 6+ | Cactus Wren - 7 |
| Wh-thr. Swift - 3 | Mockingbird - f.c. |
| * Curve-billed Thrasher - 6+ | Robin - 6 |
| Logskinned Shrike - 2 | Bill Vireo - 1 |
| * Lucy Warbler - f.c. | Yellow Warbler - 2 |
| Yellowthroat - 6 | Yellow-crowned Chat - f.c. |
| Hooded Oriole - 7 | * Bullock Oriole - f.c. |
| * young present | ① nest eggs. |

(over)

* Br.-headed Cowbird - f.c.
Cardinal - f.c.
Blue Grosbeak - f.c.
House Finch - f.c.
* Abert Towhee - f.c.

Summer Tanager - 6
* Black-headed Grosbeak - 8
Indigo Bunting - 1
Lesser Goldfinch - 12+
* Desert Sparrow - 5

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Species List

July 1 - 32 mi. S. Animas, Hidalgo Co, New Mexico Clanton Canyon

Turkey Vulture - 5	Ladder-tailed Woodpecker - 4
Red-tailed Hawk 1	Cassin Kingbird - 6
Zone-tailed Hawk - 2	Ash-throated Flycatcher - 10
Sparrow Hawk - 4	Olivaceous Flycatcher - 2
Harlequin Quail - 2	Western Wood Pewee - 1
Band-tailed Pigeon - f.c.	Mexican Jay - f.c.
Wh-winged Dove - 1	Mexican Chickadee - 1
Mourning Dove - 10	Plain Titmouse - f.c.
Scrub Owl - 2+	Bridled Titmouse - f.c.
Z/F Owl - 4+	Brush-tit - f.c.
Poorwill - 4+	Bewick Wren - f.c.
Common Nighthawk - 2	Rock Wren - 2
Bl-chinned Hummer - 3+	Hutton Vireo - 2
Acorn Woodpecker - 10	Bl-thr. Gray Warbler - 1
Arizona Woodpecker - 2+	Hooded Oriole - 2
Scott Oriole - 3+	Br-headed Cowbird - 1
Hepatic Tanager - 2	Bl-headed Grosbeak - 5+
House Finch - 10+	Lesser Goldfinch - 2
Rufous-sided Towhee - f.c.	Rufous-crowned Sp. - f.c.

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Species Lists

June 30

Guadalupe Canyon, Hidalgo Co. New Mexico + Cochise Co., Arizona

Turkey Vulture - 4

Sparrow Hawk - 1 ad. 2 yg.

Cambel Quail - 2

Wh-winged Dove - f.c.

Mourning Dove - f.c.

Roadrunner - 2

Screch Owl - 3

Z/f Owl - 7+

Common Nighthawk - 5

Bl.-chinned Hummer - 5+

Broad-billed Hum. - ~~3~~ 4

Violet-crowned Hummer - 3

Gila Woodpecker - 10+

Ladder-backed Wood - 2

Western Kingbird - 5

Cassin Kingbird - f.c.

Wied's Crested Flyc. - 10+

Ash-thr. Flycatcher - 10+

Olivaceous Flycatcher - 10+

Black Phoebe - 1

West Wood Pewee - 5+

Vermilion Flycatcher - 10+

Grayless Flycatcher - 4+

~~Leach~~ Rufous-cr. Sp. - f.c.

Scrub Jay - 3

Mexican Jay - 20+

Plain Titmouse - 1

Bridled Titmouse - f.c.

Bush-tit - small flock

Verdin - f.c.

Bewick Wren - f.c.

Cactus Wren - 5+

Canyon Wren - 8

Rock Wren - 10

Mockingbird - f.c.

Curve-billed Thrasher - 3

Bell's Vireo - f.c.

Yellow Warbler - 1

Lucy Warbler - f.c.

Hooded Oriole - f.c.

Br.-headed Cowbird - 15+

Summer Tanager - 4

Cardinal - f.c.

Bunting sp. - 1

Blue Grosbeak - 2

House Finch - f.c.

Brown Towhee - 8

Desert Sparrow - 2

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Species List

- June 29 15 mi. N. Rodero, Hidalgo Co., New Mexico - San Simon Lingua
- | | |
|------------------------------|------------------------------------|
| * Mourning Dove - f.c. | * Cactus Wren - f.c. (nest c. yg.) |
| * Wh-wing Dove - f.c. | Bewick's Wren - 2 |
| Turkey Vulture - | Bl-tailed Gnatcatcher - 3 |
| Red-tailed Hawk - 1 | * Verdin - f.c. |
| Prairie Falcon - 1 | * Bell's Vireo - f.c. |
| Sparrow Hawk - 4 (territory) | Mockingbird - f.c. |
| Mexican Grebe - 2 | * Crissal Thrasher - 1 |
| Pied-billed Grebe - 1 | * Loggerhead Shrike - 2 |
| Roadrunner - 1 | * Lucy Warbler - common |
| Violet-green Swallow - 5+ | Yellowthroat - 10+ |
| Lesser Nighthawk - 2 | Yellow-cr. Chat - 5+ |
| Ladder-backed Woodpecker - 5 | Summer Tanager - 2+ |
| Western Kingbird - f.c. | Brown-headed Cowbird - 5+ |
| Cassin Kingbird - 8 | Eastern Meadowlark - 15+ |
| Ash-thr. Flycatcher - 2 | Bullock Oriole - 1 |
| Trail's Flycatcher - 2000 | Desert Sparrows - f.c. |
| Vermilion Flycatcher - 2 | House Finch - 15+ |
| Black Phoebe - 2 | Lesser Goldfinch - 4 |
| Cardinal - 2 ♂♂ | * Gambel Quail - |

* breeding - young



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Species List

June 28

mi. S. Portal, Cochise Co., Arizona Cave Creek Canyon

Band-tailed Pigeon - 10+

Mexican Jay - 16+ (2 bands)

Whip-poor-will - 2

Mexican chickadee - 6

Wh-thr. Swift - common

Bridled Titmouse - 8+ (nest)

Bl-chin Humm. - 10+

Bush-tit - 15+

Broad-tailed Humm. - 20+

Wh-br. Nuthatch - 3

Piooli - 4

Brown Creeper - fairly common.

Bl-thr. Humm. - 3

Bewick's Wren - 2

Coppery-tailed Trogon - 20 or 1 ♀

Canyon Wren - 7

Red-sh. Flicker - 2

Robin - 2

Acorn Woodpecker - 6+

Hermit Thrush - 1

Arizona Woodpecker - 8+

Blue-gray Gnatcatcher - 6

Cassin's Kingbird - 1

Hutton Vireo - 4 (ad + young)

Ash-thr. Flycat. - 1

Solitary Vireo - 2

Olivaceous Flycat. - 3+

Virginia Warbler - 2

W. Wood Pewee - 3+

Bl-thr. Gray Warbler - 5

Grace Warbler - 3

~~Gray~~ Painted Redstart - 10+

Scott Oriole - 3

Hepatic Tanager - 4

Bl-headed Grosbeak - 8 (ygs. incl.)

Rufous-sided Towhee - 3

Rufous-crowned Spar. f.c.

Species List -

July 11 31 mi. N. Magdalena, Sonora (40589.) (40620.)

Turkey Vulture - 3	Polioptila sp. - 2
Wh-wing Dove - 5	Mockingbird - f.c.
Mourning Dove - 1	Blue Vireo - f.c.
Ground Dove - common	Blue Grosbeak - 5
Vermilion Flycatcher - 3	Yained Bunting - 2
Bewick Wren - 2	Desert Sparrow - 10
Jerdine - 6	Rufous-wing Sparrow - 2
Gr. headed Cowbird - 7	Cardinal - 5
Lesser Nighthawk - 1	

July 11 27 mi N. El Oasis Sonora 40667.

Rufous-winged Sparrow - 5 + 5000

July 12

Species List

18 mi. N. El Oasis, Sonora

Turkey Vulture - 5+	Mockingbird - f.c.
Gambel's Quail - f.c.	Blacktailed Gnatc - f.c.
Whitewinged Dove - f.c.	Bell's Vireo - 2
Ground Dove - 1	Lucy's Warbler - 3
Lesser Nighthawk - 1	Hooded Oriole - 2
Broadbilled Hummingbird - 2	Brownheaded Cowbird - f.c.
Gila-Woodpecker - 2	Pyrrohuloxia - f.c.
Ladderback Woodpecker - 3	Varied Bunting - 2
Ashthroated Flycatcher - 8	House Finch - f.c.
Raven - 2	Brown Towhee - f.c.
Verdin - f.c.	Rufouswinged Sp - f.c.
Cactus Wren - f.c.	Desert Sp. - 2
Curve-billed Thrasher - f.c.	Blue Grosbeak - 5

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Species List

July 13

20 mi. E. Mazatlan, Sonora, Mexico

- | | |
|---------------------------------|----------------------------|
| Turkey Vulture f.c. | Lutes Wren - 8 |
| Black Vulture - f.c. | Canyon Wren - 2 |
| Gray Hawk - 2 | Mockingbird - f.c. |
| Sparrow Hawk - 2 | Crow-billed Tanager - f.c. |
| Douglas Quail - f.c. | Black-tailed Gnatc. - f.c. |
| Wh-winged Dove - f.c. | Bell Vireo - 4 |
| ② Ground Dove - 4 | Yellow br. Chat - common |
| Yellow-billed Cuckoo - f.c. | Bullock Oriole - 1 |
| Great Horned Owl - 1 | Br. headed Cowbird - f.c. |
| Ridgway Whig-pm-will - 34 | Summer Tanager - 4 |
| Broad-billed Hummingbird - f.c. | Pyrrhuloxia - f.c. |
| Coppery-tailed Trogon - 3 | Blue Grosbeak - common |
| * Gilded Flicker - 6 | Vireo Bunting - common |
| Gila Woodpecker - 6 | House Finch - 6 |
| Ladderback Woodp. - 5 | Lesser Goldfinch - 1 |
| Tropical Kingbird - 2 | Brown Towhee - 8 |
| Ash-throated Flycatcher - 8 | Lark Sparrow - 1 |
| Veranillo Flycatcher - 6 | Rufous-winged Sp. - f.c. |
| Beardless Flycatcher - 6 | 5-striped Sparrow - f.c. |
| Verdin - common | Audubon Cascarara - 1 |

July 14

Same Locality

- Groove-billed Ani - 2
Lucy Warbler - 1

Magpie Jay - 2

Species List

15 July

20 mi. s. of Guaymas

White winged Dove - common

Ground Dove - 2

Gila Woodpecker - 3

Gilded Flicker - 2

Cactus Wren - 1

* Curvebilled Thrasher - 7

Blacktailed Gnatcatcher - 2

Verdin - 4

Pyrrhuloxia - common

Broadbilled Hummingbird - 2

Bell's Vireo - 2

* family group of 5, 3 grown young.

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Species List

July 15

Rio Yagui, 7.5 mi. N Ciudad Obregon, Sonora Mexico.

~~July 15~~

Black Vulture - f.c. Tropical Kingbird - f.c.

Turkey Vulture - f.c. Cassin Kingbird - 6

Douglas Quail - 2 Verano Flycatcher - 2

Wh-winged Dove - common Redless Flycatcher - 1

C. Ground Dove - f.c. Derby Flycatcher - 1

Inca Dove - 1 Social Flycatcher - 1

Yellow-billed Cuckoo - 1 Happy Wren - 1

Gila Woodpecker - 5 Mockingbird - 1

Curve-billed Thrasher - 2 Boat-tailed Grackle - 10

Br. headed Cowbird - f.c. House Finch - 3

Cardinal - 4 (2 ad. 2 yg.)

July 16

27 mi. S. Ciudad Obregon, Sonora, Mexico. 4/139.0

Turkey Vulture - 1 Curve-billed Thrasher - f.c.

Caracara - 1 Cactus Wren - f.c.

Gambel Quail - 6 Mockingbird - f.c.

Wh-winged Dove - f.c. (2 eggs) Bl-tailed Grackle - 4

Mourning Dove - 2 Br. headed Cowbird - 6

Ground Dove - 4 Boat-tailed Grackle - 3

Lesser Nighthawk - 2+ Tyrannuloxia - f.c.

Gila Woodpecker - f.c. House Finch - 3

Gilded Flicker - 4 Rufous-winged Sparrow - common

Ladder-backed Woodp. - 1 Lark Sparrow - 1 (17 July)

Olivaceous Flycat. - 2 ♂ Blk-headed Grosbeak (")

Wied's Crested Flycatcher - 2

Finch - f.c.

July 18

Species List

41386.0 - 9 mi. n. of Guamuchil

Blackbellied Tree Duck - 2	Ladderback Wdyplr - 2
Turkey Vulture - 3	Thickbilled Kingb - 4
Caracara - 1	Tropical Kingbird - 6
Douglas Quail - heard?	Wied's C. Fly - 4
Whitewinged Dove - f.c.	Olivaceous Flyc - 4
Mourning Dove - 4+	Beardless Flyc - 4
Ground Dove - f.c.	Mexican Crow - 5
White-fronted Parrot - common	Verdin - 4
Orange-fronted Parakeet - f.c.	Mockingbird - 3
Horned Owl - 1	Curvebilled Thr - f.c.
Lesser Nighthawk - 1	Blacktailed Gnatc - 3
Broadbilled Hummingbird - f.c.	Redwing Bbird - 15
Copper-tailed Trogon - 4	Boat-tailed Grackle - 20
Gila Woodpecker - f.c.	B.H. Cowbird - 10
Gilded Flicker - 6+	Cardinal - 6
Varied Bunting - 6	Rufous-winged Sp. f.c.

Species List

19-21 July

El Batel, 9 mi. (by road) e. of Santa Lucia

Turkey Vulture - fc	Eastern Bluebird - 5
Black Vulture - fc	Brownbacked Solitaire - 6
Redtailed Hawk - 1	Ptilogonys - 4
Bandtailed Pigeon - 5+	Golden Vireo - 2
Military Macaw - 4	Solitary Vireo - 1
Whitenaiped Swift - 30+	Warbling Vireo - 1
Chestnut-collared Swift - 8+	Crescent-chested Warb - 15
White-eared Hummingbird - 1	Slatethroated Redstart - 10
Mountain Trogon - 1	Painted Redstart - 1
Arizona Woodpecker - fc.	Hepatic Tanager - 10
White-striped Woodhewer - 4	Red-headed Tanager - 10
Thick-billed Kingbird - 4	Black-headed Grosbeak - 5
Olivaceous Flycatcher - fc	Chipping Sparrow - 10
Greenish Elaenia - 1	Black-headed Siskin - 10
Western Flycatcher - fc	Mexican Junco - fc
Tufted Flycatcher - 5	Rufous-crowned Sp - 10
Western Wood Pewee - 1	Melospiza Kieneri - 10
Coues Flycatcher - fc	Bluehooded Euphonia - 4
Violet-green-Swallow - 10	Redfaced Warbler - 1
<u>Progne</u> sp. - 6	Grace's Warbler - 5
Dickey Jay - 12	Hutton's Vireo - 5
Bridled Titmouse - 15	Brown Creeper - 10+
Blue Mockingbird - fc	Acorn Wdpr - fc
American Robin - 10+	Redshafted Flicker - 1
Whitethroated Thrush - fc	
Orange-billed N-Thrush - fc	

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Species List

July 23

9 mi. n. of Tepic, Nayarit

Accipiter sp. - 1

Douglas Quail - 10

Inca Dove - 2

Amazona sp - fc

Ani - 1

Parangue - 1

Broadbilled Hummer - 3

Russet-crowned Motmot - 2

Ladderbacked Wdpkr - 1

Tropical Kingbird - 2

Sulphur-bellied Flyc - 1

Kiskadees - 2

Maggie Jay - 4

Sinaloa Wren - fc

Blue Mockingbird - 4

Ploceoptila sp - 2

Loggerhead Shrike - 1

Rufous-capped Warbler - 6

Ground-cuckoo - 5

Blue Grosbeak - 5

Botteri sp. - 10

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Species List

July 25 - 9 mi. SW. La Huerta, Jalisco, Mexico km. 1114.

- | | |
|--|-------------------------------------|
| Turkey Vulture - 6+ | Beardless Flycatcher - 3 |
| Chachalaca sp. - heard several | San Blas Jay - 3 |
| Banded Quail - 15+ (JPH) | Sinaloa Wren - f.c. |
| Red-bellied Pigeon - heard | Rufous-backed Robin - f.c. |
| Rock Dove - f.c.
(sp.)? | Poliophila sp. - 6 |
| Ground Dove - 1 (heard) | Yellow-green Vireo - f.c. |
| Orange-fronted Parakeet - 6 | Yellow-winged Cuckoo - common |
| Amazona Squirrel Cuckoo - 4 | Red-eyed Cowbird - 1 |
| Groove-billed Ani - 10+ | Streak-backed Oriole - common. |
| Barn Owl - 1 (heard) | Grayish Saltator - 4 |
| Great Horned Owl - 1 (h) | Blue-back Grosbeak - 5+ |
| Otus sp. - heard. (1) | Olive Sparrow - 5 |
| Ferruginous Pygmy Owl - 4 | Stripe-headed Sparrow - 14 |
| Parakeet - 1 heard | Blue Mockingbird - 2 (July 26) |
| Cinnamon Hummingbird - 2 | Yellow Grosbeak - 1 (July 26) |
| Citriline Trogon - f.c. | Olivaceous Flycatcher - 1 (July 26) |
| Russet-crowned Motmot - f.c. | |
| Ladder-backed Woodpecker - 1 | |
| Golden-cheeked Woodpecker - f.c. | |
| Mashed Tityra - 2 | |
| Sulphur-bellied Flycatcher - 4 | |
| Kiskadee - 2 | |
| Social Flycatcher - 7 | |

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Species List

August 2

20 mi. SE. Morelia, Michoacan, Mexico

- | | |
|------------------------------------|---|
| Turkey Vulture - 5+ | Bridled Titmouse - 3 |
| Rock Dove - 1 heard | Spotted Wren - f.c. (grown young) |
| Spotted Screech Owl - 3 (heard) | Bewick Wren - 2 |
| Berylline Hummingbird - common | Canyon Wren - 5 |
| Sparkling-tailed Humm. - 3 | Blue Mockingbird - 2 |
| Rufous-crowned Motmot - 4 | Orange-billed Nightingale Thrush - f.c. |
| Ladder-backed Woodp. - 3 | Brown-backed Solitaire - 5 |
| Acorn Woodpecker - 2 | White-throated Robin - 4 |
| Cone Flycatcher - 8+ | American Robin - 3 |
| Vermilion Flycatcher - 2 | Eastern Bluebird - 6 (grown young) |
| Greenish Elaenia - 1 | Gray Silky Flycatcher - 12+ |
| Barn Swallow - 2 | Warbling Vireo - 1 |
| Golden Vireo - 2 | Solitary Vireo - 7 |
| Grace Warbler - 4 (young) | Painted Redstart - 8 |
| Slate-thr. Redstart - 10 | Rufous-capped Warbler - 10+ |
| Hepatic Tanager - 8 | Rusty Sparrow - 6 |
| Wh-collared Seedeater - 1 | Black-headed Siskin - f.c. |
| Lesser Goldfinch - 20 | Brown Towhee - f.c. |
| Bl-headed Grosbeak - 1 | Rufous-crowned Sparrow - 1 |
| August 3 { Red-shafted Flicker - 1 | Black Vulture - 1 |
| { Empidonax - 1 | White-eared Hummingbird - 1 |
| Black & White Warbler - 1 | Beardless Flycatcher - 1 |

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Species List

August 7

9 mi E. Cuernavaca, Morelos, Mexico Cañon de Lobos.

Black Vulture - f.c.	Beardless Flycatcher - 3
Turkey Vulture - 10+	Cliff Swallow - 1
Buteo sp. - 2	Rough-winged Swallow - 15±
Plain Chachalaca - heard	Spizella <u>Thryothorus</u> sp. - 1
Anna Dove - 3+	Cañon Wren - 5+
Common Ground Dove - f.c.	Blue Mockingbird - 5
Wh-fronted Dove - 1	Wh-throated Robin - 10±
Squirrel Cuckoo - 3	Orange-bill N. - Thrush - 5+
<u>Glaucopteryx</u> sp. - 1	Loggskrub Shrike - 2
Wh-collared Swift - 50+	Golden Vireo - 4
Fork-tailed Emerald - 4 (nest)	Yellow-green Vireo - 5+
<u>Amazilia</u> sp. - 1	Slate-thr. Redstart - 1
Citriline Trogon - 1	Rufous-capped Warbler - 6
Russet-cr. Motmot - f.c.	Red-eyed Cowbird - 1
Ladder-backed Woodp. - 1	Streak-backed Oriole - f.c.
<u>Cathartes</u> sp. - 1 (heard)	Wagler's Oriole - 1
Rosc-thr. Becard - 2	Yellow Grosbeak - f.c.
Kiskadee - 1	House Finch - 2
Olivaceous Flyc. - 2	Wh-collared Seedeater - 10
West. Wood Pewee - 2	Lesser Goldfinch - f.c.
Pileated Flycatcher - 5 (2 young)	<u>Melospiza</u> <u>Richardsii</u> - f.c.
Greenish Elaenia - 2	Bl-chested Sparrow - f.c.

Species List

August 5

8 mi. N. Cuernavaca, Morelos, Mexico

pine-oaks

- | | |
|------------------------------|------------------------------------|
| Turkey Vulture - 2 | Wh.-breasted Nuthatch - 1 |
| Wh.-eared Hummingbird - f.c. | Brown Creeper - 12+ |
| Beeryline Hummingbird - f.c. | Gray-banded Wren - 5+ |
| Hairy Woodpecker - 5 | Br. throated Wren - f.c. |
| <u>Dendrocopos</u> sp. - 3 | Ocellated Thrasher - 1 |
| Red-shafted Flicker - 4 | Wh.-throated Robin - 6 |
| Wh.-striped Woodcreeper - 6 | Russet Nightingale-Thrush - 10+ |
| Coues Flycatcher - 2 | Gray Sided Flycatcher - 6+ |
| <u>Empidonax</u> sp. - 1 | <u>Vireo lamii melitophrys</u> - 4 |
| Tufted Flycatcher - 7+ | Hutton's Vireo - f.c. |
| Mexican Chickadee - f.c. | Crescent-chested Warbler - 1 |
| Bl.-sided Bush-tit - 15 | Olive Warbler - 10+ |
| State-thr. Redstart - 7 | Red Warbler - 6 |
| Golden-browed Warbler - 8+ | Hepatic Tanager - 4 |
| House Finch - 4 | Bl.-headed Lark - 2 |
| Red Crossbill - f.c. | Rufous-capped Atlapetes - 2 |
| Rufous-sided Towhee - f.c. | Mexican Junco - 6 |

August 6

Diglossa baritula - 1

Strickland Woodpecker - 1

Species List

August 7

9 mi. SE. Izucar de Matamoros, Puebla, Mexico

- | | |
|---|------------------------------|
| Turkey Vulture - 10+ | Ladder-backed Woodp. - 1 |
| Wh-winged Dove - f.c. | Ivory-billed Woodcreeper - 2 |
| Common Ground Dove - 5 | Sulphur-bellied Flyc. - 2 |
| Wh-fronted Dove - 1 (heard) | Nutting Flycatcher - 4 |
| Plain Chachalaca heard | Greenish Elaenia - 3 |
| Mangrove Cuckoo - 1 | Beardless Flycatcher - f.c. |
| Ridgway Whip-poor-will - 1 | Rough-winged Swallow - 5 |
| Common Nighthawk - 1 | Banded Wren - f.c. |
| <u>Cyananthus</u> sp. - 1 | Happy Wren - 8 |
| Green-fronted Hummingbird - ^{f.c.} 2 | Blue Mockingbird - 2 |
| Coppery-tailed Trogon - 1 | Wh-cored Gnatcatcher - 4 |
| Russet-crowned Motmot - 6 | Golden Vireo - 3 |
| Rufous-capped Warbler - 8 | Black-vented Oriole - 3 |
| Streak-backed Oriole - 12+ | Yellow Grosbeak - 1 |
| Varied Bunting - 6 | Lesser Goldfinch - f.c. |
| Bridled Sparrow - f.c. | Black-chested Sparrow - 4 |
| Rusty Sparrow - 5 | |

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Species List

August 8

7 mi. S. Piaxtla, Puebla, Mexico

- | | |
|-----------------------------|--|
| Turkey Vulture - 3+ | Vermilion Flyc. - 2 |
| Buteo sp. - 1 | Sulphur-bellied Flyc. - 2 |
| Plain Chachalaca - 1 | Kestrel - 1 |
| Wh-winged Dove - f.c. | <u>Myiarchus</u> sp. - 4 |
| Area Dove - 10 | Wied Crested Flyc. - 6 |
| Common Ground Dove - f.c. | Beardless Flycatcher - f.c. |
| Wh-fronted Dove - 2 | Rough-winged Swallow - f.c. |
| <u>Glaucopteryx</u> sp. - 2 | Common Raven - 2 |
| Green-fronted Hummer - 2 | Magnolia Jay - 6 |
| Coppery-tailed Trogon - 2 | Spotted Wren - f.c. |
| Russet-crowned Motmot - 6 | Banded Wren - f.c. |
| Gray-breasted Woodp. - f.c. | Curve-billed Thrasher - f.c. |
| Golden-crowned Woodp. - 2 | Wh-lord Gnatcatcher - 4 |
| Ladder-backed Woodp. - 2 | Straw -backed Oriole - f.c. |
| Blue Grosbeak - 2 | Vained Bunting - 4 |
| Heclancher Bunting - 3 | Lesser Goldfinch - f.c. |
| Bl-chested Sparrow - f.c. | |

2 mi. N. Tlaxiaco, Oaxaca

- | | |
|-----------------------------------|------------------------|
| Lesser Goldfinch - | Brown Towhee - 2 |
| House Finch | Cañon Wren - 1 |
| <u>Aechmophorus mexicanus</u> - 1 | Blue Mockingbird - 1 |
| Dwarf Vireo - 2 | Bl-headed Grosbeak - 1 |
| Brilled Sparrow - 2 (singing) | |

1963

Species List

Aug 9-10

4 mi. sw of Matatlan,

Oaxaca

Black Vulture-2

Bewick's Wren-fc

Turkey Vulture-2

Common Mockingbird-2

Whitewinged Dove-2

Ocellated Thrasher-8

Mourning Dove-1

Polioptila-4

Greater Roadrunner-1

Ptilogonys-fc

Chestnut-collared Swift-3

Slaty Vireo-2

Beautiful

~~Lesser~~ Hummingbird-fc

Rufouscapped Warbler-fc

Beryline Hummingbird-fc

Painted Redstart-1

Cassin's Kingbird-1

Wagler's Oriole-1

Western Wood Pewee-3

Bluehooded Euphonias-6

Empidonax-2

Blue Grosbeak-1

Roughwinged Swallow-fc

House Finch-10+

Cliff Swallow-1

Lesser Goldfinch-fc

Common Raven-2

Rufous-side Towhee-fc

Scrub Jay-6+

White Throated T.-6+

Rufouscrowned Sparrow-fc

Bridled Sparrow-8

Oaxaca Sparrow-7+

Collared Seedeater-2

August 11

11 mi. sw, Matatlan, Oaxaca, Mexico

Turkey Vulture-1

Russet-cr. Motmot-2

Buteo sp.-2

Ladder-tailed Woodp.-1

Gray-breasted Woodpecker-2

wh-winged Dove-2+

Beardless Flycatcher-1

Inca Dove-2+

Rough-winged Swallow-3+

Green-fronted Humming-6

Spotted Wren-2
Canon Wren-1

Constant Star Throat-1

Blue Mockingbird-2

Wh-faced Gnatcatcher - 5+

Golden Vireo - f.c. (juv.)

House Finch - 3+

Rufous-sided Towhee - 1

Bridled Sparrow - f.c.

Rufous-capped Warbler - 7

Bl-eared Bristlet - 10

Lesser Goldfinch - 3+

Bewick Wren

Rusty Sparrow - 3

LLWolf
1967

Species List

Aug. 12

Km. 616 on Pan Am. Hwy. s. of Oaxaca, Oaxaca

Turkey Vulture - 6

Caracara - 1

Buteo sp. - 1

Plain Chachalaca - 2+

Wh-winged Dove - f.c.

Idea Dove - 6

Ground Dove - f.c.

Wh-fronted Dove - heard.

Military Macaw - heard (2)

Mangrove Cuckoo - 3+

Goose-billed Ani - 1

Lesser Road-runner - 4

Ferruginous Pygmy Owl - 6+

Green-fronted Hemmingbird - 6

Coppery-tailed Trogon - 1

Russet-cr. Motmot - 3

Island Bunting - f.c.

Bridled Sparrow - f.c.

Golden-fronted Woodpecker - 6

Ladder-backed Woodp. - 1

Beardless Flycatcher - 1

Nutting Flycat. - 3

Empidonax sp. - 2

Rough-winged Swallow - 10+

Common Raven - 1

Maggie Jay - 2

Rufous-naped Wren - 6

Rock Wren - 1

Curlew-billed Thrasher - 4

White-lored Gnatcatcher - f.c.

Golden Vireo - f.c.

Wagler's Oriole - 1

Blue Grosbeak - 2

Varied Bunting - f.c.

Horse Finch - several

LHWf
1963

Species List

August - 19 Tehuantepec, Oaxaca, Mexico

Snowy Egret - 1

Green Heron - 1

Bl-bellied Tree Duck - 2

Turkey Vulture - 5+

Black Vulture - f.c.

Roadside Hawk - 2

Caracara - 1

Bob-White Quail - f.c.

Upland Plover - 1

Area Dove - f.c.

Common Ground Dove - f.c.

Wh-fronted Dove - 10+

Orange-fr. Parakeet - common.

Anas sp. - 2

Mangrove Cuckoo - 1 (heard)

Gr.-billed Ani - f.c.

Rufous-rumped Ground Cuckoo - 10+

Lesser Road-runner - 1

Ferruginous Pygmy Owl - 2+

Yellow-winged Cacique - 2 (heard)

Black-throated Oriole - 10+

Leclancher Bunting - 10+

House Finch - 2+

Blue-black Grassquit - 15+

Stripe-headed Sparrow - f.c.

Plain Chachalaca - 2+

Parrakeet - 1

Russet-cr. Motmot - 1 (heard)

Centurus ^{aurifrons} ~~sp.~~ - 3+

Tropical Kingbird - f.c.

Social Flycatcher - 4

Kiskadee - 10

Nutting Flycatcher - 10+

Western Wood Pewee - 1

Zenaidura sp. - f.c.

Beardless Flycatcher - 4

Cliff Swallow - 4+

Frogue sp. - 6

Magic Jay - 15+

Rufous-naped Wren - 15

Banded Wren - 3

Tropical Mockingbird - f.c.

White-throated Gnatcatcher - f.c.

Bell Vireo - 1

Boat-tailed Grackle - common

Orchard Oriole - 10

Streak-backed Oriole - f.c.

Dickcissel - f.c.

Ruddy-breasted Siskin - 13+

Semichrist Sparrow - ^{common} ~~10~~

Whimbrel - 1

Rufous-backed Robin - 1 (heard)

Cynanthus sp. - 1 ♀

Wood ibis - 1

LL Wolf
1963

Species Lists

Dec. 15

Deep Canyon Reservoir Area, Palm Desert, Calif.

Ladder-backed Woodpecker - 1 ♀	Hummingbird - 1 ♀ species?
Cambel Quail - 2	House Finch - 15+
Western Bluebird - 3	Phainopepla - 5+
Verdin - 10+	House Wren - 3
Bl.-tailed Gnatcatcher - 2	Ruby-cr. Kinglet - 2
Wh.-cr. Sparrow - 4	

Dec. 15

1 mi. N. Yuana, Imperial Co., California

Cambel Quail - 2	Blue-gray Gnatcatcher - 6+
Mourning Dove - 3	Abert Towhee - 2
Swallow - 2	Redwing - 20+ + 200 Dec. 16.
Ruby-cr. Kinglet - 3	Russet-backed Warbler - 6
Orange-cr. Warbler - 3	Verdin - 4
Coot - 1	Red-sh. Flicker - 2
Ladder-backed Woodpecker - 1	Wren

Dec. 16 additions

Virginia Rail - 1 (AG)	Wh.-cr. Sparrow - 15
Savannah Sparrow - 3	Red-tail Hawk - 1
Marsh Hawk - 2	Hummingbird - 1 species?

Dec. 17 Wilcox Rd., 0.6 mi. N. Benson Hwy. Tucson, Pima Co., Arizona

Marsh Hawk - 1	Raven - 10
Red-tailed Hawk - 1	Cactus Wren - 4
Mourning Dove - 10	Curve-billed Thrashers - 6
Rufous-winged Sp. - 20+	Verdin - 5

LLWOLF
1963

Species List

- Dec. 17 Wh-cr. Sparrow - 10 Desert Sparrow - 2
Brown Towhee - 6 Ladder-backed Woodpecker - 1
Loggerhead Shrike - 1 House Finch - 2
- Dec. 18 Lincoln Sparrow - 3+ Vesper Sparrow - 10+
Brewer Sparrow - 10+ Green-tailed Towhee - 3+
Bl-tailed Gnatcatcher - 2

Dec. 19 Quins. Motino Basin, Sta. Catalina Mts, Pima Co., Arizona 4000± ft.

- Gila Woodpecker - 1 Brown Creeper - 1
Ladder-backed Woodpecker - 1 Canyon Wren - 2
Rock Wren - 10+ Bewick Wren - 2
Robin - 5+ Western Bluebird - 10+
Pine Siskin - 5+ Oregon Junco - 5+
Spotted Towhee - 2 Lincoln Sparrow - 2
Wh-crowned Sp. - 15+ Rufous-crowned Sp. - 10+
Bl-chinned Sparrow - 5+ Chipping Sparrow - 25+

Dec. 20 Motino Basin - addition to Dec. 19 - 4000 ft.

- Arizona Woodpecker - 1 Red-shafted Flicker - 2
Acorn Woodpecker - 5 Yellow-bellied Sapsucker - 1
Arizona Jay - 10+

L2Woit
1963

Zenaidura macroura

June 26 - 0.6 mi. N. Benson Hwy., Wilcox Rd., Tucson, Pima Co., Arizona
Flushed incubating bird from nest in hackberry.
nest 3 feet above ground. loosely made of coarse
sticks. held two white eggs.

saw another nest which looked like it was this
species, but had been used earlier in year.

LL Wolf

1963

Columbigillaria passerina

July 13 20 mi. E. Mazatan, Sonora, Mexico.
See journal

August 7 9 mi. SE. Azucar de Metamoras, Puebla
flushed adult from nest with one white egg. nest
essentially just a platform of grass with little depression
where egg was. About 4 feet up in Opuntia cactus + resting
on two of the pads.

LL Wolf

1963

Crotophaga sulcirostris

August 14 3 miles east of Tehuantepec, Oaxaca, Mexico.

near narrow trail thru thorn forest found nest of Ani 8 feet up in Thorn tree. Nest is bulky + made of coarse sticks. Lined with green leaves. Contained 5 chalky white eggs.

August 17 2½ miles E. Tehuantepec, Oaxaca,

Found 2 Ani nests today. One 6 feet up - again lined with green leaves + contained eggs. Another 3-3½ feet up in Thorn tree - set in crotch at main trunk. - tree ~~20~~ ± feet tall. This nest contained 7 young which were just beginning to be feathered.

LLWOLF
1963

Motococcyx cythropygus

August 16 3 mi. E. Tehuantepec, Oaxaca, Mexico.

shelled egg in oviduct - 29.5×24 mm. - chalky white.
clamped ova - $13, 8, 3$ mm. 1 ruptured follicle. taken from
pair that flushed from ground in thorn forest. located by
hearing 2 birds calling. One called more than other.
brood patch.

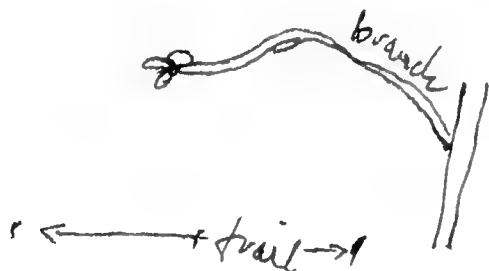
LL Wolf
1963

Chlorostilbon canivetii

August 4 9 mi. E. Cuernavaca, Morelos. Cañon de Lobos.

Saw 2 ♂♂ + 2 ♀♀. Singly.

Found ♀ about 1/2 completed building nest about 15 feet from edge of stream thru bottom of canyon. Nest above little road trail ~ 30 inches. Shrub + tree canopies probably provide continuous shade.



Nest at end of slightly drooping branch of nearby shrub. Placed on branch & supported in part by leaves at terminus. Cup appeared about 1/2 completed. Outer layer coarse inner bark, then finer material. Pieces of bark plastered on outside. Looked like no lining yet. ♀ collected material both from ground + near top of 30 foot tree. Both within 50 feet of nest. Her approach to nest was from above dropping onto nest. Twice she settled onto nest & apparently put material on outside then went thru motions like bill-wiping on side of nest.

Saw no ♂♂ in vicinity.

When I inspected nest she flew up & spread tail & chattering to within 4 feet. Then left area for 10± minutes.

LLWoff
1963

Tijmatura dupontii

August 2 20 mi. SE Morelia, Michoacan

took a pair along road thru oak-woodland, scrubby 2nd growth. When collected were about 4-6" apart, facing each other. Hovering ~12-18" above road + moving back + forth horizontally thru distance of ~1 foot. All time facing each other. Not making any audible noise except sound of wings. Watched this for ~10± sec. before collecting. Probably the courtship. Saw no movements suggesting arc such as in Archilochus. Likely the arc is used by species in which only the ♂ is the active partner.

LLWOLF
1963

Chiroxiphia linearis

August 20

9 mi. E. Tapanatepec, Oaxaca, Mexico

Down in shaded + heavily wooded stream bottom just off Pan Am Hwy found ^{adult} 4 ♂♂, 1 imm. ♂, + one ♀. Three adult ♂♂ were performing courtship display. Consists of fluttering 12± inches from perch just above ground. As reach peak + start back to perch (not sure if return to original perch) utter a 3-part call — 1 L. Tu ^{wre} ~~are~~ ooo.

Also watched one adult + one immature ♂ (green, but with red crown patch) performing same display but 15± feet above ground. ♀ I collected was apparently flying toward these two displaying birds.

When three males were performing together there seemed to be alternation of times to flutter up. Often two would be near peak together + 3rd either just starting or just finishing, but never all three at once.

Area is open near ground except for vines hanging from trees. Trees average 40-50 feet tall. Several are 75-100 feet.

♀ turned out to be an immature ♂.

UWb/f

1963

Contopus sordidulus

June 27

mi. S. Portal, Cochise Co., Arizona

collected ♀ from dead stub 25 feet up in 50 foot pine -
had shelled egg in oviduct + 3 ruptured follicles.

largest ova were 1 mm. - apparently determined number to be
laid before 1st is laid - since bird collected at ~ 0700
it seems that she was going to lay later in day. possibly
lay every other day.

plumage appeared very fresh

egg shell (in oviduct) very soft.

LLS:f
1963

Archimolophus mexicanus

August 4 Quin. E. Cuernavaca, Morelos Cañon de Lobos.

heard this species calling (whet) up hill from trail. tried to approach to collect, but it stayed just out of sight in dense brush ahead. As returning to trail saw nest hanging about 3 feet above ground in clearing but with closed canopy - ^{little} ~~no~~ ground vegetation + no dense brush. Nest well constructed, but thin - could see thru bottom + hanging at end of live ^{branch} ~~twig~~. Supported by spider webs attached to three twigs + some leaves. 2 stub-tailed young in nest. Nest ~ 60 feet up hill from trail.

Waited for adult to return. Came silently about 4-6 feet up thru dense underbrush. Left when I moved + began giving whet call. Moved around an about 30-40 feet away. Stayed 5-15 feet above ground - landing on bare twigs often in open sometimes in dense tangle. Always below canopy. Several times chased another bird while giving rassy, chattering call. Other prob. the ♀. While calling bird occupied my attention a 2nd silent bird came to nest (20 feet from me) + fed young. Collected + was ♀ in brood patch. ♂ continued calling intermittently for 5± minutes + then was silent. Presumably left area. About 15 minutes after I collected ♀ I heard young calling softly from nest. Sounded like very soft version of whet call of ♂. Collected nest + young. Nest clean of fecal material + in excellent condition.

LL Wolf
1963

Myiarchus cinerascens

June 24 0.6 mi N. Benson Hwy. Wilcox Rd. Tucson Pima Co., Arizona

Pair of adults feeding 2 young which are as large as adults. Note of young is higher than adults. These were the only individuals of this species seen in the area.

June 25. Same locale.

bird flew from bare limb of mesquite 3 feet above ground & tried to catch large blue wasp which was flying just above ground. missed wasp & lit on ground watching wasp fly about 2 feet away. wasp circled 3-4 more times & lit on ground. bird watched it walking on ground for several seconds then reached over & picked a grasshopper off ground flew up to mesquite branch to eat prey. seemed to have to beat prey against branch before swallowing.

LWOLF

1963

Cyanocorax dickcyei

July 21

9 mi. E. Santa Lucia, Sinaloa, Mexico.

El Batel

#2047

central rectrices - $3/5$ grown. #2 pin - all sheathed.

primaries 1 + 2 - grown and #3 - $3/4$ #4 - just erupting rest old.

secondaries #1 - $1/3$ grown rest old.

5° coverts (greater) - sheathed at base.

pin feathers on dorsal, breast, + thighs.

iris yellow.

juveniles had dark cream irides.

John said there were at least 11 in the flock from which he took swen. According to the fellas who showed John the locale, the birds remain flocked all year ^{each flock} + can always be found in a restricted area.

LL Wolf
1963

August 17 *Campylorhynchus rufinucha*
2 1/2 miles east Tehuantepec, Oaxaca, Mexico

Found nest with 4 eggs 5 1/2 feet up in 6 foot Acacia.
Both parents were around nest. Male left and
first + was collected when lit in another Acacia
20 feet away. As I approached nest 2nd bird - ♀ -
flew out probably from the nest.



X - sec. of nest.

Tube entrance not so long as
in C. brunnicapillus.

LL Wolf
1963

Thryothorus pleurostictus

August 7

9 mi. SE. Ayucar de Matamoros, Puebla, Mexico

species fairly common in pairs in thorn woodland on hillsides above Pan American highway.

Found nest $5\frac{1}{2}$ feet up at end of branch of legume tree 10 feet tall. Nest entirely of grasses + weed stems - all dead.



X-sec.

Flushed adult from nest so probably incubating, but unable to reach contents. Nest ~ 12" below a U-shaped weep root.

Birds collected today were all very worn.



LLW86f
1963

Parus inornatus

June 30 - Guadalupe Canyon, Hidalgo Co., New Mexico

collected one bird from Sycamore. it was constantly being harassed by a Violet-crowned Hummingbird.

Hummer did not molest 3 Bewick Wrens feeding 5-20 feet away. Seemed to single out Hummer.



LLWS/f

1963

Parus gambeli

July 3

Signal Mt., Grant Co., New Mexico

*1921 - molt -

crown - many pin feathers.

primaries - 1-3 - new #3 $\frac{1}{2}$ grown 4-10 old

rectrices - #1 $\frac{1}{2}$ inch grown (sheath) rest old.



LLWoff
1963

Parus sclateri

June 27

mi.s. Portal, Cochise Co., Arizona Cave Creek Canyon

One collected after comment to Pygmy Owl imitation. bird is very worn

molt - tail #1+2 sheathed - 2-4s grown

#3 - missing

#4-6 old

wing primaries: 10-6 old

5-1 new.

wing coverts molting.

general body molt.

see Parus wollweberi notes

44 Wolf
1963.

Auriparus flaviceps

- June 25 0.6 mi. N. Benson Hwy. Wilcox Rd. Tucson, Pima Co., Arizona
begging juvenile sitting $\frac{2}{3}$ way up in 7 foot mesquite -
gape is still yellow; bird seen to beg w/ wing fluttering.
Only fed once by adult which I watched. Could fly as
well as adults. -
- June 26 - same locale
still feeding young. It can fly as well as adults, but
still begs. Gape yellow.
many empty nests in the area. probably were
several pairs in area when I watched Lufow-
wings.

LLWolt

1963

Parus wollweberi

June 28

mi. S. Portal, Cochise Co., Arizona

Found nest in hole where limb had broken off 25' up in oak along stream bed. Adult was feeding young which could be heard begging when adult was at nest. When I first noticed birds I thought they had come in in response to Pygmy Owl imitation. At intervals one of two visible gave begging display + once I thought this bird went to nest entrance.

It seems as if this adult was being followed by flying young while feeding 2nd nest. Perhaps the flying young was also helping care for 2nd nest.

About 200 yards further up trail I called in an adult ♂ Parus sclateri undergoing postnuptial molt. If they are resident here then 2 species of Parus are occupying same stream bed woodland.

June 30

Guadalupe Canyon, Hidalgo Co., New Mexico

This is the common pair in the canyon. Occurs in riparian vegetation of sycamores, oaks, + juniper.

Encountered usually in family groups of 3-5. Awaraken collected today (1902) was alone. Groups are spaced about 300 yards apart in canyon.

July 1

mi. S. Animas, Hidalgo Co., New Mexico. Clanton Canyon
#1910 - light body molt. primaries 1+2 3/4 grown #3 sheathed
rest of flight feathers old. bird very worn.

LhWolff
1963

Poliophtila melanura

June 25

0.6 mi. N. Benson Hwy. Wilcox Rd. Tucson Pima Co., Arizona

pair foraging in open cholla - hackberry - mesquite association. I watched foraging in 3 hackberry bushes always foraged by hopping about stems + picking at leaves & stems for insects.

LLW:CF
1963

Pipilo *melanura*

July 12 18 mi. N El Oasis, Sonora, Mexico.

pair feeding $\frac{3}{4}$ grown cowbird in mesquite parkland with some acotillo.

July 16 27 mi. S. Ciudad Obregon, Sonora, Mexico Km. 1812.

Watched pair go to old nest in epiphyte clump in a legume tree. nest 10 feet up + near center of clump. First noted as ♂ went to clump, hovered + flew away. ♀ hopped at nest several times from several angles + carried away a ball full of nesting material. found $\frac{3}{4}$ complete nest in direction she flew. had some lichen on outside but cup not completed in all parts of bottom.

LWOLF

1963

Turdus assimilis

July 21

9 mi. E. Santa Lucia, Sinaloa, Mexico

El Batel

Both this species + ~~the~~ Turdus migratorius occurred here. Seemed to have very distinct + different habitat preferences. T. migratorius occupied open pine woods with scattered oaks + little understory. T. assimilis occurred in predominantly oak woods with mixed pines. Understory well developed of small oaks + shrubs. Also a species of Arremonops.

Call notes of two species are impossible for me to differentiate.

L. Wolf
1963

Toxostoma curvirostre

June 24 Del Mar - Benson Hwy. Wilcox Rd. Tucson Pima Co., Arizona
Yesterday I picked up a fully-feathered + full grown young of the year dead on the highway north of Tucson. Today I found nest with 2 eggs. Nest in outer "branches" of one arm of a 5 foot cholla. Nest was $3.5 \pm$ feet high. Composed of: outer, catclaw twigs; inner - fine grasses etc. for lining. Adult flushed from nest when I was $50 \pm$ feet away + not approaching the nest in any direction of walk.

June 25 - same local

took eggs out of nest - 1 broke on way to town.
John saw the birds + called them Curve-bills.
Pat Gould says our description of the nest matches a Curve-bill, but the egg is like the T. bendirii eggs in the Ariz. collection!!



LCWolf
1963

Vireolanus melistophus

August 5

Found family group of 4 moving thru pine-oak woods at
~ 50 feet from ground. After I collected first one others
began harsh meowing call which sounded like a cat but
not as soft. Collected all four.

Soft part colors on young:

bill: dark brown above, flesh & dark brown tip below.

iris: bluish & little green around pupil.

legs: flesh

Adult:

bill - black

iris - yellow

legs - flesh.

#2167 - body & wing molt.

#2169 - had remains of same type caterpillar as adult ♂.
possibly fed to it by adult.

#2168 - molt

primaries 1-3 new ⁵⁻¹⁰ ~~4~~ old. #4 - just emerging
secondaries new

greater coverts molting
rectrices #1 - $\frac{3}{4}$ grown #2 - just emerging rest old
heavy body molt.

Apparently not a family group

LLW8/F
1963

Deudroica nigrescens

June 27 4 mi. Portal, Cochise Co., Arizona

shot an adult ♂ foraging in sycamores + oaks along stream
up south fork trail. bird was molting on breast, sides,
back. Outer primaries were old - #5 $\frac{2}{3}$ grown. rest new.
tail old.

July 4 4 mi. NW Silver City, Grant Co., New Mexico Bear Mt.

Saw young out of nest - apparently full grown
& independent - foraging in Canadensis, oaks
on rocky hillside.

LHW:fs
1963

Cardellina rubrifrons

July 3 - Signal Mt., Grant Co., New Mexico

an adult ♂ (1920) was molting in following way:

breast + sides - orangish pin feathers

back - mid - to rump - pin feathers.

primaries 1-4 new #4 $\frac{2}{3}$ grown 5-9 old.

rectrices - #1-3 - new - sheathed #4-6 - old.

bird was slightly fat

July 9 Lady Bug Saddle, Graham Mts., Graham Co., Arizona

#1954 - wet primaries 1-4 - new #4 just sheath - 5-9 old.

rectrices - 3-6 - old. #1 sheath #2 - missing

pin feathers on: back, rump, sides, breast, crissum.

LLWolf

1963

Cassidix mexicanus

July 18

around + south - Culiacan, Sinaloa.

Grackles very common on fences + ~~at~~ edges of puddles or in grass along road. As many or more ♂♂ than ♀♀, but ♀♀ may be on nests. Saw some trees with 10± ♂♂ (trees 10-15 feet tall - shrubby) + what appeared to be about an equal number of nests. If these really were nests it would seem that the sex ratio in this area is close to 1:1 or at least of those birds seen from the road.

Saw no obviously young birds so probably breeding just started.

LL WOLF

1963

Cossichus melanictus

July 25 6 mi. SW. La Huerta, Jalisco km. 1114 on Mex. 80

Several nests are under construction in tree across from camp. one (1) nearly completed (2) just started at end of branch on outer limb.

pair lit at nest 2 - ♂ at point where nest attaches + ♀ 1 foot above. ♂ preened then turned 60° + bowed with head below feet + wings + tail spread. at same time gave raspy trilling call. repeated procedure facing 180° around after ♀ flew to vine hanging 3 feet away. This put her more on level of ♂. About 15 sec. between displays. Both birds then flew off - one 100 feet behind other.

It seems that ♂ + ♀ are active at each of the nests. I cannot be sure that it is always same birds.

0841 - pair (♂ + ♀) flew in from SW to nest 1. ♀ carrying long grass ♂ following by 20-30 yards. ♀ lit in nest + immediately disappeared. ♂ flew by nest c̄ wings in dihedral + tail slightly spread + uttering trilling call. lit on level of nest ~ 5' away.

0850 - ♀ in from SW c̄ small piece of grass. dives directly into nest. after adding material flies off again to SW.

nests are approx. 75 feet up in 100 foot tree along stream. tree is at edge of group of 4-6 such large trees all of different species.

0905 - ♀ in from S.W. or sitting in top of dead 20 foot cypress follows as she flies over. She directly to nest.

LHW & f
1963

Cassidix melanicterus

July 25

mi. SW La Huerta, Jalisco km. 111 Km Mex. 80.

♂ to 3-4 feet above ^{& to nest} then to directly above (2-3 feet)
when hidden from view. gives finny courtship call &
probably was giving display. ♀ deep inside nest. can
still see her at bottom, but top pretty much complete.

Has been no further activity at nest 2. (0910)

0910 - ♀ come in alone + lands court nest material
visible 50 feet to west & below nest. 0911 - flies to nest &
inside. 0912 - ♀ drops down to shrub layer vegetation
below + SE of nest.

0915 - ♀ up from shrub layer with nest material. followed
from nearby by ♂. she into nest entrance & dives
immediately into shrub layer below nest. then back
up followed by ♂ who perches on horizontal limb
4 feet above nest. ♂ remains silent until I start to
write notes & have lost track of activities.

#2072 - molt - primaries 1+2 - new #3 $\frac{1}{2}$ grown #4 - just emerging
rest old. marginal coverts molting.

2° - innermost new; rest old.

body plumage worn - some pin feathers on lower back.
probably a first year ♂



LL Worf

1963

Cassidulus melanosternus

July 25

mi. sw. La Huerta, Jalisco, Mexico km. 1114 on Mex. 80.

#2084 primaries 1+2 new #3 $\frac{1}{2}$ grown #4 just erupt.

rest old.

2° - old.

vectors - old.

#2085. 1° - 1+2 new 3 - erupting - rest old.

tail worn.

LL Wolf
1963

Passerina rosita

August 20 9 mi. E. Tapanatepec, Oaxaca, Mexico.

2376 - molt. head mostly pin feathers. hind neck & section across lower mid-back brown. mid-back, rump, & up. tail coverts blue. some brown & scarlet on breast. abdomen salmon.

2° - immaturest new nest old

1° - 1-4 molting 5-9 old. #1 & #2 - full grown.

LLWOLF
1963

Oriturus superciliosa

August 6

1 mi. N. Tres Cumbres, Morelos, Mexico conifer + bunchgrass.

#2180 - beetle fragments in stomach.

2178 - molt on sides of neck, wings, + upper tail coverts.

egg was white c red-brown spots - heavier + forming wreath on large end. some on smaller end. stomach c beetle fragments.

2172 - stomach - mostly insect fragments - little vegetable matter.

2183. stomach - insect fragments.

2182 - stomach - insect fragments

Birds in bunch grass meadows with scattered conifers. When pursued generally take refuge in the conifers. Flight is direct with tail slightly elevated. Often glide for long distances. Use rock outcrops as lookouts + song posts. Also sing from exposed perches on dead stubs, or dead limbs in the conifers. Once saw two birds land side by side + then give chattering trill apparently both birds. Then separate by 5-6 feet + one bird give call.

Only song heard was the harsh, chattering trill. Call note is sharp "chink."

Apparently these birds also dent as do Amphispiza sparrows.

Pursued groups of 3-5 trying to collect entire group. Never successful. It seemed that more than 2 adults

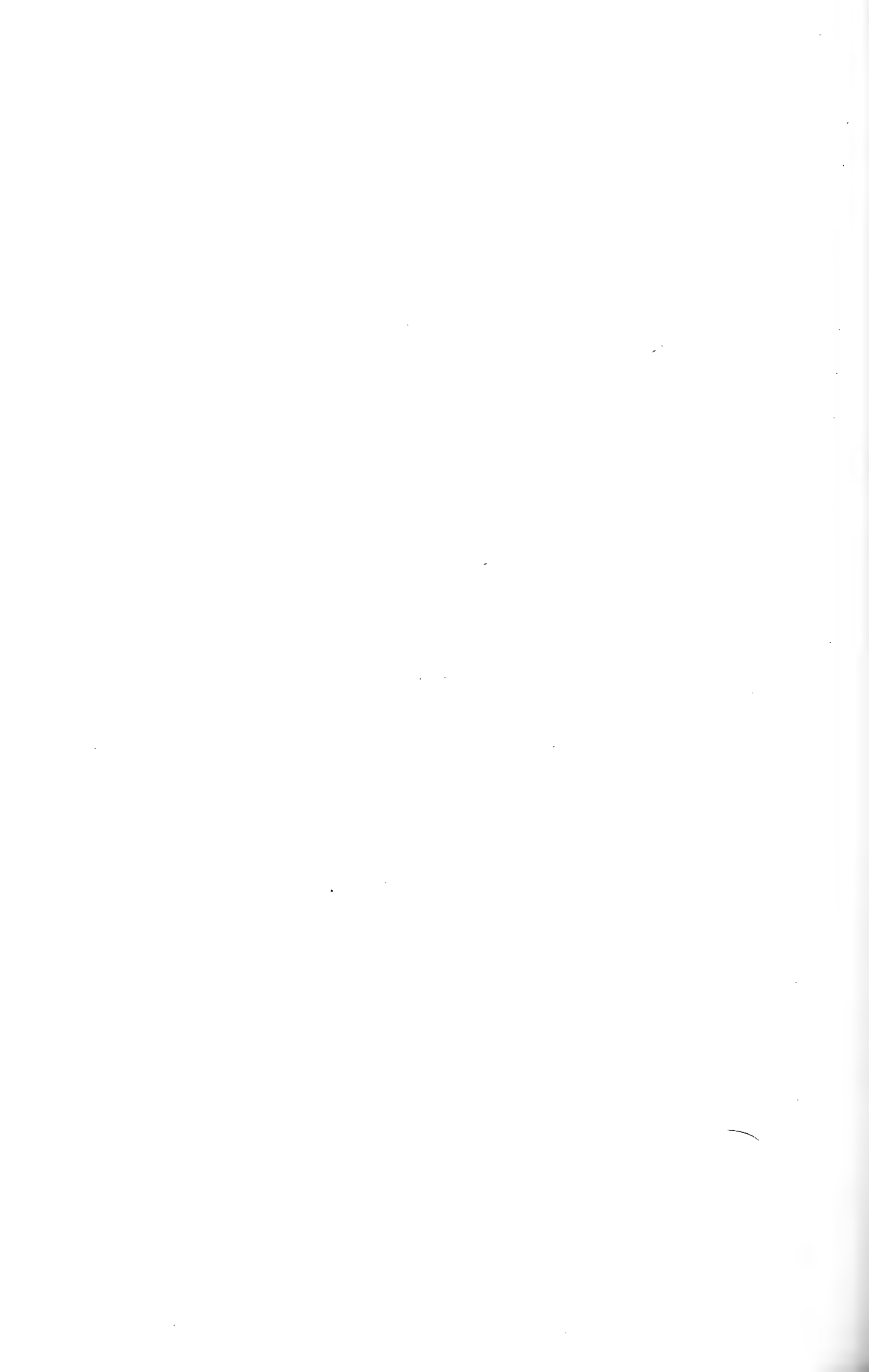
Wolf
1963

Oriturus superciliosa

August 6

1 mi. N. Tres Cumbres, Morelos.

were associated with each group. As there were juveniles present this may be post-breeding congregating, but some of the birds are obviously in process of molting. Perhaps 2nd brood.



LLWLF
1963

June 27

Chondestes grammacus
~~Smith. Ft. Huachuca~~, Cochise Co., Arizona
#1885 - stomach - mostly insects.

1886 - stomach - 25% veg. 75% insects.

last night I collected a juv. in company of adult.
This morning found 2 adults + 1 juv. in yellow
woods w/ scattered Sacaton grass + mesquite other
grass was overgrazed. collected the ♀ which
hung around w/ young. other adult (♂?) flew off
as I approached. ♀ had stage 3 brood patch,
but ovary looked like she probably would lay
another clutch - several 2 mm. ova + others
slightly smaller.

LH Wolf
1963

Chondestes grammacus

July 4

mi. NW Silver City, Grant Co., New Mexico Bear Mt.

Saw young bird fly down to ground + disappear among scattered rabbit brush. Did not flush until I was 4-8 feet away. I checked area from which it walked away slowly + found a slightly disrupted, brownish, nest. Young may have been in nest where flushed.

Young full grown + appeared to be undergoing post-juv. molt.

An adult was seen 30 feet away in juniper.

LH Wolf

1964

Pipilo erythrophthalmus

~~Red~~

March 15 Big Springs Canyon, Tilden Park, Contra Costa Co., Calif.

0930 - 0950 giving 63333333 call. occasionally hear a short version of song.

Watched 2 ♂♂ (Black head) foraging in & out of each other. One calling. 1st flew up hill to top + lit in center of baccharis where gave an occasional 6333 note. It continued foraging in grass just out from edge of baccharis + poison oak area. 2nd flew further up hill + perched on poison oak stems. Then flew across slope to east across open grassy area + it was called back at another baccharis patch. 3rd flew up hill from this position was another poison oak which had been calling. 4th flew up hill following almost same path taken by 2. Then 4th back to hill area where 1st was watching was foraging. Foraged for a short time then up into baccharis to give 1333 call. Also heard parts of song song attached to end of buzz.

KWOF
1963

Pipilo fuscus

July 12 Km. 30 - S.E. Hermosillo, Sonora - on road to La Colorado.

nest of grass w/ 3 eggs. - white w/ rusty spots.
nest 5½ up in Palo Verde (?) shrub. In crotch
at main, central stem. Incubating bird flushed
when I was 6-8 feet away. Stayed in 20 feet
chirping occasionally. Joined by mate w/ reunion
calls.

July 31 9.5 mi. N. Ixtlahuacán del Rio, Jalisco, Mexico

pairs here are accompanied by full grown young. area
is oak - juniper woodland.

LLWOLF
1963

Amphispiza bilineata

July 6 mid. Cliff, Grant Co., New Mexico

#1936 molt:

primaries 1+2 - new #2 - $\frac{7}{8}$ grown. rest of flight feathers old.

molt on lower back + ventrals.

#1937 - primaries 1+2 $\frac{1}{4}$ grown rest of flight feathers old - #1 pair of rectrices missing. molt on breast + sides, throat, crown, back, rump, crissum (all pin feathers).

Melospiza kieneri

Aug 22

About 9 mi. e. of Cuernavaca, Morelos,

duet —

A presumed pair of this species was observed performing a "pair-reunion"-type duet. The action does not appear to differ materially from the similar display of the Brown Towhee group. Two birds come together, either on perches or on the ground, and each admits a squealing series of notes. No special postures were observed during the performance.

W. W. Hoff
1964

Species list

June 14 Molino Basin, E. Tucson, Pima Co., Arizona

Ladder-backed Woodpecker - 2	Olivaceous Flycatcher - 7
Acorn Woodpecker - 2	Zone-tailed Hawk - 1
Ash-throated Flycatcher - f.c.	Black Phoebe - 2
Lassin Kingbird - f.c. (nest)	White-winged Dove - f.c.
Broad-billed Hummingbird - 1	Mexican Jay - 5
Rivoli Hummingbird - 2	Common Nighthawk - 10+
Costa Hummingbird - 1	Rock Wren - f.c.
Black-chinned Hummingbird - 2	Bewick Wren - 2
Broad-tailed Hummingbird - f.c.	Blue-gray Gnatcatcher - 4
Crissal Thrasher - 1	Belt Vireo - 2
Bronzed Corobird - 1	Mockingbird - 1
Scott Oriole - 5+	Hooded Oriole - 5+
Hepatic Tanager - 3	Lesser Goldfinch - 15+
Brown Towhee - 6+	Desert Sparrow - 1
Rufous-crowned Sparrow - 8+	

LL Wolf
1964

Species List

Boydin Springs, Angelina Nat'l Forest, Jasper Co., Texas

- | | |
|---|--|
| Sharp-shinned Hawk - 1 | Blue Jay - f. common |
| Turkey Vulture - 2 | Common Crow - f.c. |
| Bob-white - 2 (calling) | Chickadee - Y9. |
| Mourning Dove - 1 | Tufted Titmouse - f.c. |
| Common Night hawk - 2 | Brown-headed Nuthatch - 10± |
| Yellow-billed Cuckoo - 2 | Carolina Wren - Y9. |
| Red-bellied Woodpecker - f.c. | Bewick Wren - |
| Downy Woodpecker - 2 | Blue-gray Gnatcatcher - Y9. |
| Red-cockaded Woodpecker ^{nest} - 10± | Hermit Thrush - 3 |
| Red-headed Woodpecker - 2 | Red-eyed Vireo f.c. |
| Σ Wood Pewee - 1 | Wh-eyed Vireo f.c. |
| Crested Flycatcher - 10± | Black + White Warbler - 1 |
| Purple Martin - 4 | Hooded Warbler - 1♂ |
| Summer Tanager - 10± | Pine Warbler - f.c. full grown Y9. |
| Cardinal - f.c. | Pine-woods Sparrow - 3 + 6 ^{f.c. fledglings + 2nd brood.} |
| Empidonax - 2 | Yellow-throated Vireo - 1 |
| Belted Kingfisher - 1 | Killdeer 4 |

LL Wolf
1964

Species list

Welder Wildlife Foundation, San Patricio Co., Texas.

June 25-

- | | |
|---|---|
| Laughing Gull - 10+ | Scissor-tailed Flycatcher - 10+ |
| Killdeer - 7 | Verdin (nest) - 4 |
| Green Heron - 1 | Mockingbird - ^{nest} common |
| Mottled Duck - 1 | Brown-headed Cowbird - common |
| Red-tailed Hawk - 1 | Boat-tailed Grackle - 10+ |
| Turkey Vulture - 10+ | Eastern Meadowlark - common |
| Black Vulture - 6-10 | Cardinal - ^{family groups - nests.} common. |
| Bobwhite - ^{in pairs + 1 covey} common | Pyrrhuloxia - common |
| Turkey - common | Blue Grosbeak - 2 |
| Mourning Dove - ^{nest (2 eggs)} 10± | ^{building - nestlings full grown yg.} Painted Bunting - common |
| Yellow-billed Cuckoo - ^{nest eggs} fair common | ^{full grown yg.} Cassin's Sparrow - common |
| Roadrunner - ^{nest - just hatched} 4 | Black-thr. Sparrow - 2+2 |
| Common Nighthawk - 10+ | ^{full grown yg. nest.} Lark Sparrow - common |
| Golden-fronted Woodpecker - ^{laying ♀} 6 | White-eyed Vireo - ^{full grown yg.} 10± |
| Wied's Flycatcher - 8 | Anna Dove - 2 |
| Common Ground Dove - 3 | Blue-gray Gnatcatcher - 2 |
| White-Tailed Hawk - 2 | Orchard Oriole - 5 |
| Barred Owl - 2 | Grasshopper Sparrow - 1 |
| Dickcissel - 4 | Tufted Titmouse - 1 |
| Bell Vireo - 10+ | Bewick Wren - 2 |

LL Work
1964

Species List

July 14—

Cañon de Lobos, 9 mi. E Cuernavaca, Morelos, Mexico

- Black Vulture - 14(25[±]), 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27,
Turkey Vulture [14(2), 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28
Plain Chachalaca - 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28(8+)
Inca Dove - 14(6), 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 29
C. Gr. Dove - 14(3), 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 29
Squirrel Cuckoo - 14(2), 15, 16, 17, 18(3), 19, 20, 21, 22, 23, 24, 25, 26, 29
Myiophobus sp.
Bl. collared Swift - 14(25[±]), 23(50[±]), 24(50[±]), 25, 26
Fork-tailed Emerald - 14(2), 15, 17, 18, 19, 21, 22, 25, 26, 27(1), 29(♀)
Violet-cr. Hummer - 14(1), 15, 18, 19, 20, 21, 22, 24, 25, 26, 27, 29
Sparkling-tailed Hummer - 14(1♀), 24(♀),
Russet-cr. Motmot - 14(4), 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 29
Golden-ch. Woodp. - 14(1), 16, 19, 24, 26, 27, 29
R. the. Becard - 14(common), 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 29
Th. billed Kingbird - 14(2), 17, 23, 24, 25, 26, 27
Olivaceous Flyc. - 14(1), 22
W. Wood Pewee - 14(3), 15, 17, 19, 20, 21, 22, 23, 24, 25, 26, 29
Greenish Elaenia - 14(4), 15, 16, 18, 19, 21, 22, 25, 26, 27(4)
Beardless Flyc. - 14(5+), 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 29
R. winged Swallow - 14(10+), 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 29
Magpie Jay - 14(3), 15(1), 26(1), 27(2)
Banded Wren (14^{nest} common), 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 29
Canyon Wren 14(1), 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 29
Blue Mockingbird 14(1), 15, 16, 18(2), 21, 22, 24, 25, 26, 27, 29
Loggerhead Shrike - 14(1), 15, 17, 19, 21, 22, 26
Fan-tailed Warbler - 14(1)
Basileuterus rufifrons - 14(4), 15(1), 22(1), 24, 26(1), 29(1)
Dusky Hummingbird - 20, 21, 22, 23, 24, 25, 26,

LLWoff
1964

Canon de Lobos 9 mi. E. Cuernavaca, Morelos, Mexico

July 14-

Streak-backed Oriole - 14 (common), 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 29

Bronzed Cowbird - 14 (10+), 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 29

Br.-headed Cowbird - 14 (5+), 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 29

Yellow Grosbeak - 14 (3), 15, 16, 17, 18, 19, 20, 21, 23, 24, 25, 26, 27, 29

Lesser Goldfinch - 14 (common), 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 29

Melospiza cinerea - 14 (15+), 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 29

Aimophila ruficauda - 14 (common), 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 29

Aimophila humeralis - 14 (common), 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 29

Aimophila ³⁰⁷⁷ - 14 (4), 15, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 29

Yellow-gr. Vireo - 15 (1), 18 (3), 26 (1), 27 (1)

Golden Vireo - 15 (1), 16, 17, 19, 21, 22, 24, 29 (2)

Myiarchus cinerascens - 15 (1), 20 (1), 22

Red-tailed Hawk - 14 (1), 15 (1), 16, 19, 20, 23, 26 (2)

Empidonax sp. - 15 (1), 20, 21, 22, 27 (1), 29 (1)

Vermilion Flycatcher - 15 (6+), 16, 19 (3), 20, 22, 24, 26, 29

Sulphur-bellied Flyc. - 17 (1), 21, 22, 27 (1)

Heliopeus constantii - 17 (1)

Roadrunner - 17 (1), 19, 22, 24 (2), 27, 29

Raven - 16 (1), 18 (1)

Curve-billed Thrasher - 17 (3), 18, 20, 21, 22

Groove-billed Ani - 18 (2), 21, 22,

B-tailed Grackle - 18 (6+), 21 (288), 23 (151), 24, 29 (9)

Banded Quail - 15, 16, 17, 18 (5+), 19, 20, 21 (3), 22, 24, 26, 27, 29 (4 in colony)

Ptilinopus cinereus - 16 (1), 19 (6+), 20, 21, 22 (4 - flying SE), 24, 26, 29 (100+)

Yes ~~Black-headed Grosbeak - 20 (2), 21 (2), 23 (2), 24 (2), 26, 27, 29 (2)~~

Ammodramus concolor - 20 (2), 25 (2)

Spotted Wren - 20, 21, 22, 27 (1)

LL Wolf
1964

Species List

July 14-

Cañon de Lobos, 9 mi. E. Cuernavaca, Morelos, Mexico

Mottled Wood Owl - 21(3)

Belted Owl - 21, 22

Chamaethypis poliocephala - 22(1), 23, 29

Keppler's Oriole - 22(1)

Berylline Hummingbird - 21, 22(1), 24,

Social Flycatcher - 24(1), 26, 29(1)

Acchamotophus - 22, 24, 25, 26, 27, 29

Varied Bunting - 2 f, 26(♂, ♀), 29 (1st yr ♂ - singing)

Orchard Oriole - 26(3), 27(2)

Blue Grosbeak 27(1)

Cliff Swallow 26, 29

Happy Wren - 29(1)

Pipilo sp. - 29 (1 juv.)

LL Wolf
1964

July 30, 31
August 1

Species list

5 mi. NW Coyuca, 500± ft., Guerrero, Mexico

tropical deciduous

Green Heron - 2	Rough-winged Swallow - 10+
Common Egret - 5+	Magpie - Jay - 5+
Snowy Egret - 2	Black-and-Blue Jay - 5
Roadside Hawk - 1 imm.	Rufous-naped Wren - 10+
Turkey Vulture - 5+	Rufous-backed Robin - 10±
Plain Chachalaca - 6+	White-bellied Gnatcatcher ^{fledglings} - 6+
Banded Quail - 10±	Gray-crowned Yellowthroat - 10+
Purple Gallinule - 1	Yellow-winged Cacique - 20+
Tacana - 10+	Boat-tailed Grackle - common
Ruddy Ground-dove - common	Red-winged Blackbird - common
Duck Dove - common	Bronzed Cowbird - common
<u>Leptotila</u> sp. - 2	Brown-headed Cowbird - ✓
Orange-fronted Parakeet - common	Orchard Oriole - 5+
White-fronted Parrot - 10±	Spot-breasted Oriole - 2
Groove-billed Ani ^{nest-building} - common	Streak-backed Oriole - fairly common
<u>Morococcyx erythropygius</u> - 10±	Grayish Saltator - 1
Pauraque - 2	Common Cardinal - 3
Broad-billed Hummingbird - 5+	House Finch - 5+
<u>Arremonops</u> sp. - f.c.	White-collared Seedeater - common
Citreoline Trogon - 2	Ruddy-breasted Seedeater - 4
Green Kingfisher - 2	Blue-black Grassquit - common
Golden-fronted Woodpecker - 5±	Olive Sparrow - common
Tropical Kingbird - common	Black-chested Sparrow - 2
Social Flycatcher - 10±	Stripe-headed Sparrow - common
Kiskadee - 10+	

Lt Wolf
1964

Species List

August 2 22 mi. S. Chilpancingo, 2800± ft., Guerrero, Mexico. pine-oak.

Laughing Falcon - 3

Grace Warbler - 10+

Amazilia sp. - 10+

Rufous-capped Warbler - common

White-striped Woodcreeper - 2

Hepatic Tanager - 1

Greater Pewee - common

Rusty Sparrow - common.

Sinaloa Wren - 4+

Black-headed Siskin - common

Sialia sp. - 5±

August 3-5
7-10

5 mi. E. Cuernavaca, 5900± ft., Morelos, Mexico

Leica Dove - 10+

Ladder-backed Woodpecker - 3

Turkey Vulture - 2+

? Xiphocolaptes - ?-1

Black Vulture - 3

Vermilion Flycatcher - 1

Buteo sp. - 1

Contopus richardsoni - 2

Roadrunner - 1

Contopus pertinax - 2

Squirrel Cuckoo - 5+

Pileated Flycatcher - 4+

Violet-crowned Hummer - common.

Nutting Flycatcher - 4

Berylline Hummer - 10+

Olivaceous Flycatcher - 2

Fork-tailed Emerald - 10♂

Greenish Elaenia - common.

Empidonax sp. - 1

Raven - 2

Canyon Wren - 5+

Thryothorus sp. - 2

Curve-billed Thrasher - 1

Sialia - 3

Catharus aurantirostris - common.

Blue Mockingbird - 1

Gray Silky Flycatcher - 5+

Golden Vireo - common

Basilentus rufifrons - 10+

Myioborus miniatus - 3

Streak-backed Oriole - 2

Hepatic Tanager - 2

House Finch - common

Lesser Goldfinch - common

Blue Grosbeak - 3

Varied Bunting - 1♂, 1♂, 1♀

Brown Towhee - 1

Melospiza cinerea - comm.

Rusty Sparrow - comm.

Russet-crowned Motmot - 1

Bronzed Cowbird - 1

Northern Water Thrush - 1 (Aug. 9)

Warbling Vireo - 2

Tanagra musica - 2 (♂, ♀)

LL Wolf
1964

Species List

7.5 mi. N. Cuernavaca, 7400 ft., Morelos, Mexico

Buteo sp. - 2

Wh.-eared Hummingbird - common

Scrubline Hummingbird - common.

Red-shafted Flicker - 4+

Hairy Woodpecker - 6+

Strickland Woodpecker - 2

Greater Pewee - 10+

Zenaidura sp. - 5+

Tufted Flycatcher - 10+

Brown-backed Solitaire - 2

Hutton Vireo - 5+

Slate-thr. Redstart - 10+

Golden-browed Warbler - 5+

Red Crossbill - 10+

Atlapetes ventricipes - 8

Mexican Junco - common

Mexican Jay - 10+ (2 flocks)

Mexican Chichatec - ^{common} 10+

Black-eared Bushitit - common

Wh.-breasted Nuthatch - 5+

Brown Creeper - common

Gray-banded Wren - 6

Brown-thr. Wren - 10+

Ocellated Thrasher - 2

Russet Nightingale-thrush - 5+

Chestnut-sided Flrike - vireo - 2

Olive Warbler - 5+

Red Warbler - common.

Hepatic Tanager - 1 ♂, 2 ♀♀

Atlapetes pileatus - 6+

Red-eyed Towhee - common

LLW81f
1964

Species list

August 11

2 mi. N. Tres Cumbres 9100± ft., Morelos, Mexico

Black Vulture - 3	Brown-throated Wren - 4
Green-Violet-ear - 10+	American Robin - 40±
Broad-tailed Hummingbird - common	Eastern Bluebird - 10+
Red-shafted Flicker - 10+	Russet Nightingale-thrush - 2
Strickland's Woodpecker - 4	<u>Ptilogonys cinereus</u> - 1
Hairy Woodpecker - 2	Loggerhead Shrike - 1
Greater Pewee - 3	Black-&-White Warbler - 1
<u>Empidonax</u> sp. - 2	Olive Warbler - 6
Violet-green Swallow - 50+	State-thr. Redstart - 1
Mexican Chickadee - 3	Red Warbler - 2
Hepatic Tanager - 1	Striped Sparrow - common
Mexican Junco - common	Red Crossbill - 20+
House Finch - 5+	Pine Siskin - 15+
<u>Atlapetes pileatus</u> - 2	Rufous-sided Towhee - common

LLWof
1967

Species List

August 14 7 1/2 mi. SW. Matatlan, 6100± ft., Oaxaca, Mexico

Turkey Vulture - 3	Ocellated Thrasher - 5
India Dove - 5+	Blue Mockingbird - 2
<u>Leptotila</u> sp. - 1	Wh-lined Gnatcatcher - 4+
Beautiful Hummingbird - 6+	Gray Siskin-flycatcher - fairly common.
<u>Empidonax</u> sp. - 5+	Slaty Vireo - 4
Nutting Flycatcher - 2	Black- & White Warbler - 1 ♀
Scrub Jay - 10+	Rufous-capped Warbler - f.c.
Bewick Wren - 10+	Wagler's Oriole - 1
Spotted Wren - 6+	Hepatic Tanager - 1 ♀
Black-headed Grosbeak - 2	House Finch - f.c.
Lesser Goldfinch - common	<u>Pipilo erythrophthalmus</u> - f.c.
<u>Pipilo albicollis</u> - 6+	Bridled Sparrow - 10+
Oaxaca Sparrow - 2	Rufous-crowned Sparrow - 10±

August 16 16 1/2 mi. SW. Matatlan, 4200± ft., Oaxaca, Mexico Km. 616 on Pan Am Hwy.

Turkey Vulture - 5	Caracara - 1
Laughing Falcon - 1	Russet-crowned Motmot f.c.
Plain Chachalaca - f.c.	Golden-fronted Woodpecker 6
White-winged Dove - f.c.	Gray-breasted Woodpecker - 10+
White-fronted Dove - 3	Sulphur-bellied Flycatcher - 2
India Dove - f.c.	<u>Empidonax</u> sp. - 10
Common Ground Dove - 4	Rough-winged Swallow - 10±
Roadrunner - 3	Common Raven - 2
Ferruginous Pygmy Owl - 4	Rufous-naped Spotted Wren - common
<u>Amazilia</u> sp. - 2	Rock Wren - 1
<u>Trogon</u> sp. - 3	Curve-billed Thrasher - 10+

White-throated Gnatcatcher - 15+

Wagler Oriole - 1

Varied Bunting - 6

Leclerc's Bunting - 1

Bridled Sparrow - common

Dickcissel - 7

Thick-billed Kingbird - 6

Warbling Vireo - 7

} Aug. 27

12:10 mil 450 421

LLWOLF
1967

Pipilo fuscus

August 8 5 mi. E. Cuernavaca, 5900 ± ft., Morelos, Mexico

found nest 4½ feet up in shrub thicket. adult flushed from nest containing 2 white eggs with rufous-brown spots.

August 9 5 mi. E. Cuernavaca
adult

flushed 3 times during course of the morning. nest still contains only 3 eggs. each time flushed adult it flew off to S to tree at edge of open woods. on second flight another *P. fuscus* immediately flew in to same tree to land next to incubator & squall ensued.

August 10 Nest - 7½ feet up in Labratan-like shrub with short, recurved thorns.
outside - 13 dia x 10 cm deep

inside - 75 mm dia x 55 mm deep

Eggs - 24.5 x 20, 24.0 x 20.0 mm - spots heaviest at large end.

nest of weed stems & grasses. solely grasses in interior, becoming much finer on lining, few horse hairs in lining.

1130 - ♀ (or adult) flushed from nest as I approached to check it.

LLWolt
1964

Quiraca caerulea

August 3 5 mi. E Cuernavaca, 5900 ± ft., Morelos, Mexico

0630 - watched ♀ that appeared to have blue head carrying nesting material from weed pile to small shrub in patch of shrubs in grazed area. no ♂ in sight.

August 8 5 mi. E. Cuernavaca, 5900 ± ft., Morelos, Mexico

saw pair - ♂ + ♀ - in area 75-100 yds W of nest. ♀ did not have bluish head. nest is complete apparently + no eggs laid.

August 8 5 mi. E Cuernavaca

1100


~~0700~~ - nest contained one whitish (pale bluish in right light) egg. adult not in sight.

August 9 5 mi. E. Cuernavaca

♀ with bluish-appearing head sitting on nest at 0700. contained only one egg. checked twice more during morning - last at 1130 + no 2nd egg laid.

August 10 5 mi. E. Cuernavaca.

0830 - checked nest + found 3 whitish - pale bluish - unmarked eggs. 2 are smaller than 3rd which must be a Bronzed Cowbird egg. ♀ not sitting.

Nest 95 cm up, 11 cm. - outside depth, 11 cm - outside dia 65 mm - inside diam. 6.0 cm deep. set in  - crotch - exterior of weed stems, paper, + snake skin - lined with finer grass + some horse hair. some gressle around supports.

Eggs. 22 x 16.5, 22 x 17, 25 x 21 mm last is Tangavira aeneus egg.
1130 - ♀ not on nest.

LH Wolf
1964

Selasphorus platycercus

August 11

2 mi. N. Tres Cumbres, 9100± ft., Morelos, Mexico

This is the common hummer in the pine-bunchgrass association. One adult ♂ has center of activity & edge of flowering patch of Lupinus & Pentstemon. Have seen several tree displays. Works by stages - goes 10± feet & hovers then another 10± feet - to height of 75 to 100 feet then nearly straight down with sharp arc at bottom. Usually has 333 - 333 - 333 call at bottom of arc. Then climbs again in short spurts usually to height of 25-30 feet but more rarely to same as initial height. dives again - shorter dive gives more open arc. then climbs again to full height. Only 3-4 dives in a sequence. Only time have seen another hummer at bottom of dive it was a ♀ Broad-tail. feeding at Pentstemon. Bottom of dive closely corresponded with her position & was 2-3 feet above tops of grass.

Have seen this ♂ chase other Broad-tails - not sure of sex. Once was foraging at Pentstemon when a Colibri thalassinus approached. ♂ Broad-tail immediately left & went back to perch 30-40 yds away. Colibri feeds freely in this Pentstemon patch but no other Broad-tails.

LKW:LF
1964

Oreithys superciliosa

August 11

2 mi. N. Tres Cumbres, 9100 ± ft, Morelos, Mexico

0626 - flushed adult from short grass between clumps of bunch grass. Flew up into lower (8-10 ft up) branches of nearby pine + began t-zit call. joined in tree by a 2nd adult + then by a juvenile which came up from near where 1st bird was foraging. Juv. + 2nd adult worked close together 10 ft up on bare portions of pine branches. 1st adult worked to W side of tree + then flew - flight direct + straight until just before landing when set wings + then flutter down to ground - 20± yds. to W + landed in bunch grass. Other 2 stayed 10-15 sec longer in tree then flew about 1/2 way to where 1st landed + also dropped into bunch grass. After 2-3 min of foraging one adult flew back to electric lines near pine tree. 2nd adult flew into pine tree where sat preening. Another adult from N. flew into bunch grass near where two adults had been foraging + heard dry chatter. After 1-2 minutes in tree + electric lines both flew to edge of cleared area where foraged by hopping along ground. One went into bunch grass clump (checked later + there were avenues of short grass between bunches). then disappeared. Both flew up + to S as I approached. A juv. joined 2 adults farther to W. later saw two adults go back to area near where first seen. adults + juv. moved in lower branches of pine tree, at least one chipping. One adult then other flew off to E to land in lower branches of pine 30+ yds away. juv. stayed in tree + moved about branches + preened. Then flew off to SE to area from where first seen.

Seemed to be two pairs of adults coming close together + young associating with both, but pairs remaining separated.

LLW01f
1969

Oriturus superciliosa

August 11 2 mi. N. Tres Cumbres, 9100 ± ft., Morelos, Mexico

- 0715- flushed pair from grass on lava hill. up into nearby pine where moved thru branches from 8-12 ft up. one stayed on bare + dead branches while moved out to tips in middle clumps. Both giving tsit notes + preening. one in middle clumps twice worked down to 6-8 feet above ground only to move back up. both then flew to S 70+ yds to lower branches of next pine. then disappeared. heard sharp tsit notes from near 1st pine + then quiet. tried to flush birds with no success.
- 0805- adult up 8 ± feet on dead stub branch ($\frac{1}{2}$ " dia.) at edge of 2nd pine. preening in sun + chirping softly.
- 0808- 2nd adult up momentarily to 6 ± foot ^(high) branch of next pine - 10 ± yds away + then back to ground. bird on perch stretches then turns to face where other bird dropped down + flies, then glides + flutters to drop nearby in bunch grass.
- 0811- adult up into middle clumps (6 ± feet up) in third pine. preens + quiet.
- 0853- flushed three birds from bunch grass. 2 flew across road to E + 3rd flew to S. A 4th flew up + went W. As two landed in pine one gave dry chatter from area where 4th went a bird chatter followed by chatter from one of two together. Then 3 birds flew out of pine where 2 had gone - all flew to lava hillside + landed on bare rocks. One gave dry chatter as landed + remained with wings spread to side + down + tail slightly spread. All three appeared to be in adult plumage. Two of 3 flew back to E - one landing in grass along road + other into lower (6-8 ft.) branches of nearby pine. 3rd bird flew off to W to area where 4th bird last seen.

LWOLF
1964

Oriturus superciliosus

August 11

2 mi. N. Tres Cumbres, 9100± ft., Morelos, Mexico

0930 - 0950 - followed group of at least 6 birds (2 ad., 2 juv. 2?) in pine-bunch grass area. first found where one flew up to stub limb of pine - 8 feet up joined, while chirping softly, by a 2nd bird which worked rapidly up to near top of 50± foot pine & then flew off to W & landed in bunch grass - two others already there. while 5 other birds moved to N in several flights landing once in bunch grass & once on lava outcrops. Bird on stub sat chirping then moved to W 50± yds to electric lines. birds on ground split into two groups - 4 going back to S & 1 at least going slightly farther N. Birds from S. then heard several times giving dry chatter. Saw bird from N drop into bunch grass giving chip notes. One then 2 others from S. flew over. one from S. landed on lava rock & sat with tail cocked at 60°; feet & neck extended. then also dropped down to ground.

1006 - after chirping for 3+ minutes 7th bird from S. flies to lava rock & 6 feet above ground. tail slightly elevated. then flies, glides, flutters to ground in bunch grass where giving tzit notes (chirping).

1040 - 1120 - watched pair forage near car. at first were on nearly bare ground where level cut made during road work. moved along by hopping on occasionally tilted bill at 30° L above horizontal & even less often gave chatter call. once other adult ran toward it carrying approaches bill to jump, turn in air, then chatter facing 1st bird when landed. moved up onto bank & third bird flew on up hill. Two birds foraged on open slope where grass < 3 inch tall & up to bunch grasses & around base of 7 foot pine. then flew over to tall pine to W & then down to ground 75± yds to N. foraged here in grazed field - mostly away from bunches

LLWO/H
1964

Oriturus superciliosa

August 11

2 mi. N. Tres Cumbres, 9100 ± ft., Morelos, Mexico

grass where weeds & grass just begin the ground. several times heard chatter—seemed to be always given by same bird. much chatter as flew down little incline 3-4 feet to join other bird. watched several erratic dashes while foraging as if chasing an insect. foraged in closed ellipse & then repeated the loop covering much the same route. two birds generally stayed together, but occasionally became separated by 10-40 yds.

two other adults—one 3rd bird that flew uphill—utilize area just S. of pin. one foraged in exactly same area as first pair where two areas meet. foraged in open, 1 inch grass then flew up into same pin used by pair 1. moved to top & began counter-chatter with bird in next pin to S. two then came together & flew off to S.

Song sometimes elaborates into dry chatter with liquid trill at end.

Flushed ^{adult} ♀ from nest in clump of bunch grass. Nest on west side of clump & on top of tussock. Adult fluttered out & disappeared to N. Did not return when checked nest area 2 more times in one hour. Made of grass & contained 3 whitish eggs with reddish-brown spots—heaviest at large end.

LL Wolf
1968

Dendrocopos scalaris

August 5 5 mi E. Cuernavaca, 5900 ft., Morelos, Mexico

LLW 2895 - ♂ molt.

I^o - 1-6 - new 7-³/₄ yr. 8 - sheath 9-10 - old

- light body molt.

LLWDIF
1964

Vireo hypochryseus

August 4. 5 mi. E. Cuernavaca, Morelos, Mexico 5900±ft.

♂♂ singing at various locations thruout 2nd growth woods.
watched fluttering juvenile being fed a 1st inst green lepidopteran larva
by an adult. young slightly above adult on different branch.

Song - first note soft + usually not heard. generally
sounds like ti, ti ti ti ti ti chaweeee

Birds seen foraging in foliage of trees + shrubs from tops of 25± foot
trees to 2± feet up in shaded shrubby areas. Adult collected
yesterday had mostly insect remains in the stomach with one large (6-7mm
dia) seed.

LL Wolf
1964

Myiapagis viridicata

July 27

Canon de Lobos, 9 mi. E. Cuernavaca, 9800± ft., Morelos, Mexico

molt LLW 2811

I° 1+2 new 3-1/2 grown 4 - just erupting from sheath 5-10 - old.

2° - greater coverts - sheaths at base

heavy body molt

tail - all old.

LLWoff
1964

Tyrannus crassirostris

July 14

Cañon de Lobos, 9 mi. E. Cuernavaca, Morelos, Mexico

collected (2) by Pick Sage.

LLW #2636 ♀ body plumage mostly new. II° - old.

I° - 6-10 old. 5 - sheath, 4 - $\frac{1}{3}$ gr., 3 - $\frac{3}{4}$ gr. 1-2 - new.

corresponding coverts new. greater II° cov. - sheaths

marginals - new. med. + lesser II° cov. - old.

rect. rt. #1 - $\frac{1}{4}$ gr. 2-5 - old. left #1 < $\frac{1}{4}$ gr. #2 - sheath 3-6 old.

LLW #2637 body plumage - $\frac{1}{2}$ new.

I° 1 - $\frac{1}{3}$ gr. 2 - $\frac{1}{4}$ gr. 3 - sheath 4-10 - old.

II° + cov. - old. rect. - old.



LLWOLF
1964

Icterus pustulatus

July 14 Cañon de Lobos 9 mi. E. Guadalupe, Morelos, Mexico 4800 ± ft.

LLW #2647 ♂ molting

I° - 1+2 sheath 1 > 2 3-9 old. some body molt

LLW #2733 ♀ molt

I° - 1-½ gr. 2-⅓ gr. 3-sheath 4-9 old.

body molt-tight rebarbering hood patch



LLWolf
1964

Phaenicticus chrysopygus

July 14 Cañon de Lobos, 9 mi. E. Guamavaca, Morelos, Mexico 4500 ± ft.

LLW #2648 ♂ molt

± 0-#1 - sheath - 2 y-old.

LL Wolf
1964

Columbigallina passerina

July 15 Cañon de Lobos, 9 mi. E. Guernavaca, Morelos, Mexico

found nest with 2 eggs. eggs appeared fresh when held toward sun. nest 5½-foot up placed on horizontal area where limbs came off a main side branch. Limbs had been broken off. Adult flushed from nest as I walked by on trail beside nest.

July 16 Cañon de Lobos, 9 mi. E. Guernavaca, Morelos, Mexico 4800± ft.

Nest of small sticks + grasses 6½-7 feet up in 8 foot Opuntia on flat, horizontal pad at junction with ^{two} other pads. Flushed adult several times during morning so assume contains eggs. On grazed hillside - open with Opuntia, Acacia, + scattered other shrubs.

July 25 Cañon de Lobos, 9 mi. E. Guernavaca, 4800± ft., Morelos, Mexico

10X0 - found nest 6½ feet up on horizontal pad (live) of Opuntia. adult flushed from slight cup of small twigs + fines lining containing one egg. had flushed adult 2 days before but unable to find nest as pad tilts just slightly above horizontal on S. side making it hidden from that side. area is dense 2nd growth "rock orange" + Acacia up to 8± feet tall. herb cover of grasses + annuals. east + north facing slope.



LH WOLF
1964

Chlorostilbon canivetii

July 18

Cañon de Lobos 9 mi. E. Cuernavaca, Morelos, Mexico

LW 2693

heavy body molt

I° 1- 7 new 7 sheath at base 8- sheath 9+10-old.

rectrices



left 1+2 unsheathed

rt. #1-sheath #2 unsheathed.

LLWOLF
1964

Melanotis caerulescens

July 21 Cañon de Lobos, Qui. E. Cuernavaca, Morelos, Mexico

LLW 2730 - max.

I^o - 1 - $\frac{2}{3}$ yr. 2 - $\frac{1}{2}$ yr. 3 - just breaking sheath 4-10 old.

LL Wolf
1964

Aechmophorus mexicanus

July 25 Cañon de Lobos, 9 mi. E. Cuernavaca, Morelos, Mexico 4800± ft.

Song ... L ~~U~~ given from exposed perches 2 to > 30 feet
tu tu twee-ee, spluttering trill then ^{t-wee-ee} pe-wee ee

up. Tail flicks in time with tu tu notes - distinctly flicked - & very rapidly during trill.

0815 - sitting in top of 25 foot oak at edge of wooded gully singing
~ once every 15 seconds.

0825 - left tree & flew off 40± yds to NW (uphill & into center of gully)
Continued singing.

LLWoff
1964

Myiozetetes similis

July 29

Cañon de Lobos, 9 mi. E. Cuernavaca, 4800 ft., Morelos, Mexico

LLW 2826 - skel. molt. ♂

I° 1-4- new 5- $\frac{2}{3}$ grown 6- just erupt. 7-gone 8-10-old.

II° - 1- $\frac{3}{4}$ gr. vest-old.

rectr. 1- just erupt. 2-sheath 3-6-old. right side not as

far advanced as left.

body molt - nearly complete.

LH Wolf
1964

Campylorhynchus jocosus

July 28

Cañon de Lobos, 9 mi. E. Cuernavaca, 7800 ± ft., Morelos, Mexico

Nest ~ 125 cm up in *Opuntia*, F-B 19 cm, B^{Back} = 16, F^{Front} = 14
Top-B^{Bottom} = 20 cm, Inside 7.5 deep, Lip = 7, diameter
of entrance = 6, Egg color - off white covered
with brownish spots. Nest made of dry
grass. Few feathers in the lining (one of *Piaya cayana*)

Skuxet
1964

Muscivora forficata

July 8

Laguna Atascosa Refuge, Cameron Co., Texas

1530 - watched adult (♀ by tail length) fly down to crushed shell road carrying large, winged grasshopper. alighted on road & began to beat grasshopper on shell fragments. Holding insect by various parts of body, bird twisted head, usually to right & rapped insect sharply on substrate usually in both directions. Several times lost insect & flew off ground 6-12" to recover it. Finally apparently killed grasshopper & was able to flip it in air 1-2" from bill to change position in bill. Took 1+ minute before finally able to swallow it head first. Part still visible in $\frac{1}{2}$ -opened mouth before final swallow. Bird then sat on road with bill open & wings slightly spread from body. Picked at substrate & had 2 small pieces of shell in bill at different times. Presumably swallowed them for grit.

LLWOLF
1964

Toxostoma curvirostre

July 9

6 mi. NW. Port Isabel, Cameron Co., Texas

♂ LLW 2625 - primary molt - #1 - full grown sheath at base

greater + median I^o coverts 1+2

new - sheathed

#2 - $\frac{3}{4}$ grown

#3 - 10 - old.

stomach contained seeds of berries that colored intestine purple.

RD Sage 244 - "♀" - "contained some red seeds in her stomach."

LLWoff
1964

Amphispiza bilineata

June 26

Welder Wildlife Foundation, San Patricio Co., Texas

Yg. flew up from ground into top of 4' hackberry - appeared very white. had no black on throat except for small spot in center of breast. looked like fine streaks above that, but not as pronounced as in birds ⁱⁿ just ~~acquired~~ ^{newly} acquired juv. plumage. have seen no adults yet.

LL Wolf
1964

monochloroacetylen

March 15 Big Springs Canyon, T. 16 N. R. 12 E., Contra Costa Co., Calif.

0930 - ^{downy} yellow. (mosses) had in top of 2 foot
high spruce. There are many flowers, mostly
with closed buds + 5 stalks on NE side that are
in bloom. Bird is pecking at closed buds then
apparently eating some. Some inside + the outside
bracts dropped off the side of the bud. Once thought
it took some small leaves from top of bush.
Feeding in this way for 10 minutes then flew up to
20 feet + disappeared into Staph. bush.

W. C. C. / f
1944

Spinus psaltria

June 14 Alpine Basin, E. Tucson, Pima Co., Arizona

Noted several groups of 5-10 individuals.
Seemed to be congregated about some plants in
seed. All birds seem to be green-backed.

LLW018
1964

Geococcyx californicus

June 13 | Catalina Hwy., 1 mi. E. junct. with Tanque Verde Rd.,
Tucson, Pima Co., Arizona

flushed adult from nest 4½ feet up in
cholla. nest exterior of muzzled twigs. lining
of plant down. bottom of nest not supported by
cholla branches, only support from sides about
½ way up nest. many sticks on ground below
nest as if either many lost during construction or
bottom gradually collapsing.

Adult jumped off + to ground. Ran low to
ground + nearly horizontal for 20-30 feet. Crouched
with feathers sleeked. Crouched low + ran horizontal
again. Repeated this several times until
disappeared from sight.

LL Wolf
1964

Passer domesticus

June 16

around San Angelo, Tom Green Co., Texas

beginning 10+ miles W of San Angelo + also several miles east noted that House Sparrows were nesting on every 2nd telephone pole which bordered dense mesquite woodland. Occasionally saw nest in sparse mesquite but not as regular.

Found that birds were using a V-shaped insulator support for their nests + these were only placed on every 2nd pole which partly accounted for even spacing of 80± yards between each nest. Around several farms noted nests wedged between main pole + cross bar so the birds could have put the nests closer together. Three poles held two nests usually on 1st + 3rd cross bar - one near main pole + other more distal. The V-shaped supports were on all 3 bars on most poles. Not sure if these doubly placed nests were both active.

L. Wolf

1964

Zenaidura macroura
Mourning Dove

June 13 Tucson, Pima Co., Arizona Wilcox Rd.

flushed adult from nest on ground containing 2 eggs. under + in shade of partly defoliated mesquite 4-5 feet tall. nest composed of grasses slightly formed into cup + just raising eggs off ground. adult flopped off nest + fluttered to ground 15 feet away, acted as if injured + flopped 20-20 feet farther away where disappeared. eggs very exposed, but probably shaded most of day.

Area is grassy with composite bushes + hackberry + mesquite - seemed to be plenty of places where could nest in tree.

LLWOLF
1964

Sayornis saya

June 16 Davis Mtn Jct., Reeves Co., Texas

adult arranging nest material on cross support of
roof over gas pumps at Chevron station. Did not see
it arrive with material, but spent 10-15 sec. arranging
on 2 sides.

LL Wolf
1969

Thryothorus pleurostictus

July 21

Cañon de Lobos, 9mi. E. Cuernavaca, Morelos, Mexico 4900 ft. ±

Found pair nest-building $4\frac{1}{2}$ feet up at top branching of nearly bare Acacia. Both sexes build, but one does much more than other. Twice ♂ sang while ♀ was in nest. Averaged $1\frac{1}{2}$ trips to nest per min. Nest structure nearly completed + all materials during 15 min. watched (0855-0910) were placed inside.

Materials gathered within $30\pm$ yds of nest & usually closer. Adult carrying material flew to one of several used perches 10-15 feet from nest & perched before flying to nest. Several times flew up to nest then turned in air & came back to perch. Perches in shade & approx 2 feet above ground. On leaving nest usually flew straight off to out of sight, but sometimes stopped at one of perches for 5-10 sec. before flying off. ♀ seemed to be gathering most of her material in stream gully to NE of nest.

Song of ♂ ----- first part can be fast to drill a slow so each note stands out. Last part is upward inflected whistle. May also introduce song with an upward inflected note.

July 22

Cañon de Lobos, 9mi. E. Cuernavaca, Morelos, Mexico

Saw adult - presumably the ♀ - carrying nesting material at 0830. Most of trips were to W & she seemed to be plucking plant fiber for lining.

July 24

Cañon de Lobos, 9mi. E. Cuernavaca, Morelos, Mexico 4800 ± ft.

nest probably of this species 7+ feet up in Opuntia. Two birds in nearby (20 feet ±) thicket. ♂ singing occasionally. 0844 - another bird begins

LLW:K
1964

Thryothorus plumosus

July 24

Cañon de Lobos, Qui. E. Cuernavaca, Morelos, Mexico

singing downhill (on east facing slope, $> \frac{1}{4}$ mile from other nest) ♂ counter-sings from thicket. Downhill bird (#2) moves uphill 30 $30 \pm$ yds north of ♂ of nest (♂ #1). ♂ #2 sings & answered by ♂ #1. ♂ #1 then flies over in that direction & lands near top of 7 foot bush. Displaced by another (prob. ♀) & ♂ #1 in rapid, shallow wingbeat (fluttery) flight with tail spread slightly back to 10 foot tree in thicket near nest. Flying about 20 feet above ground & singing. Then similar song flight back to N to pass over intruding ♂ & turns abruptly uphill to west & resumes normal flight. Disappears from view.

July 27

Cañon de Lobos, Qui. E. Cuernavaca, 7800 \pm ft., Morelos, Mexico

nest watched being built now contains one egg. is aqua (light)-colored. no parent scolded while I inspected nest.

July 29

Cañon de Lobos, Qui. E. Cuernavaca, 7800 \pm ft., Morelos, Mexico

checked & photographed nest at 1100. Three eggs - pale ^{blue} ~~blue~~ - light shell & nearly transparent. ♂ sang from 10 \pm yds away while I inspected nest.

LLW&F

1968

Mimus gilvus

August 21

3 mi. E. Tehuantepec, 1000 ft., Oaxaca, Mexico

Full grown young with parents noted in thorn scrub.

LLW 3072 ♂ - molt. - heavy body molt

I° - 1-5 - adw - 6 $\frac{1}{2}$ grown 7-10 - old

II° - 1 - adw $\frac{1}{3}$ grown rest old.

nestvices - 1 - $\frac{7}{8}$ grown 2 - $\frac{1}{3}$ grown 3 - just empty 4 - fresh 5-6 - old.

LL Wolf
1964

Columbigillia passerina

August 21

2 1/2 mi. E. Tehuantepec, 100± ft., Oaxaca, Mexico

found 2 nests today. both on ground at bases of 2± foot shrubs in open *Acacia* grassland. adult flushed from each nest in rain. both bore earth depression - now muddy - 2nd had few bits of grass apparently placed around rim.

1st contained 2 young covered with down, but with flight feathers beginning to erupt. pile of feces on one side of nest.

2nd contained 2 white eggs that appeared to be fresh when held up to sunlight.

LLWOLF
1968

Scardafella inca

August 24 2½ mi. E. Tehuantepec, 100± ft., Oaxaca, Mexico

flushed adult from nest containing 1 white egg 2½ ± fat up in
3 foot ± shrub. nest just below upper layer of leaves & resting on
tangle of shrub branches. of grasses - very small cup. nest & egg
wet & cool - was raining last night & earlier this morning.

LL Wolf
1969

Melospiza lewisi

July 23 Cerro de Lobos, Pini. E. Cuernavaca, Morelos Mexico

1810 - heard squeal very much like essentially the same as P. pile
fuscus, but shorter. Then watched one foraging in shrub & vine
tangle in wooded gully about 8 feet above ground. Moved thru
vegetation rather deliberately - prying about.

.09XO - same pair - hear 3333} as note repeated twice from gently
then silence. Then treet note followed by 333333} dust. quiet.

July 24 Cañon de Lobos, 9 mi. E. Guamavaca, Moulon, Mexico

0640. ♀ sitting at top of vine tangle in wooded gully - preening
in sun. ♂ singing from just downhill. Just after ♀ flew in
direction of ♂ direct squeal of pair reunion heard. Loud then
faded off then loud again.

0710 - watched adult forage thru partly defoliated tree - worked in canopy up to 10 feet above ground sitting + peering then pulling + moving on. Suddenly a 2nd bird flew in + 1st dropped down to shrubs + squeal just ending in chatter.

August 4 5 mi. E. Cuernavaca, Morelos, Mexico

0830 - sharp chirping by adult just off road. joined by a 2nd adult + heard squeal. found nest about 4 feet above ground at top fork of shrub. vine also growing up shrub. surrounded by nearly closed canopy at 10-12 foot level + 15+ foot tree provides shade.

Also shade from vine & shield leaves. Nest of coarse twigs & grasses on exterior. Lining of finer, short stems ≤ 1 mm. diameter. 2 young with shielded feathers on all tracts & beginning to erupt on rump, & main trunk tracts.

LLW014
1969

Melospiza kinere

August 7 San E. Cuernavaca, Morelos, Mexico

0833 - adult chipping 20± yds from nest. in 2 flights works to nest. Chipping ceased just prior to last flight. landed on rim + seemed to feed young - heard begging notes from young. remained on rim of nest until 0834 - flew off 10± yds to NW where sat chipping. flew off + disappeared to NW just as heard squeal in that direction. This adult not part of the squeal.

0900 - adult in silently to 10± feet NW of nest. then to nest. short burst of begging notes by young + then saw adult apparently eating something. another adult began to chip + one at nest flew off to NW. chipping adult came into view on 45° L limb (2" dia) near trunk - 1/2 way up 18ft tree. continued chipping with head + tail raised + crown feathers erected. also changing directions slightly on perch. then flew off to NW.

0902 - heard squeal 30-40 yds. to NW.

0906 - adult silently to nest + begging notes by young. As I raised binocs adult raised head + tail + erected crown feathers + began chipping. continued reaching into bottom of nest then flew off 10± feet to W where continued chipping.

0907.5 - adult to nest silently + young begging. leaves silently to NW + squeal about 20-30 yds from nest.

0913.5 - bird chipping NW of nest 10-15 feet.

0914 - to nest young beg. adult feeds + then chips several times. reaches into bottom of nest + doesn't seem to pick up anything. then to bottom of nest again, picks up fecal sac, + flies off to NW.

0931.5 - adult to nest where feeds young. then puts head into bottom of nest. but comes up at 0932 with nothing in bill + flies off to NW.

LL Wolf
1964

Melospiza Kieneri

August 4 5 mi. E. Cuernavaca, Morelos, Mexico

- 0940- adult chipping to NW of nest.
- 0941- adult to nest. apparently fed begging young then left after turning around with crown feathers raised as hear squeals from Amphispiza rufescens 40 \pm yds. SW of nest.
- 0943.5- adult chipping near nest then quiet at 0944.
- 0959- adult in silently to nest where fed begging young. chirped once with crown raised and flew off to NW - same way as came in. young continued begging after adult left.
- 1027- adult in silently from NW with food. fed begging young + chirped several times as I shifted position + Rusty Sparrows squealed. flew off to NW.
- 1028- chipping bird worked along tree, 20% above horizontal 3" diam. branch. then onto almost vertical 8" dia. tree trunk. worked up from 1 \pm to 4 \pm feet above ground before leaving.
- 1030- adult chipping just NW of nest.
- 1031- to nest; fed yg. then to bottom of nest. flew off silently to NW with empty bill.
- 1051.5- adult to nest. young beg + continue begging for 5 \pm sec. after adult leaves. only at nest 10 \pm sec.
- 1052.5- adult to nest. chip once + leaves as I look up. young continue begging for 5 \pm sec. after adult has disappeared to NW.
- 1112- adult to nest silently from NW. first seen in shrub 3 feet away + then to nest. young begging after adult lands on nest. young continue begging while adult sits on rim then quiet. adult reaches to bottom of nest + young beg again + continue begging as adult flies, empty-mouthed; off to NW. when chips 15 \pm yds from nest - then quiet.



LL Wolf
1964

Melzone Kimeri

August 5 5 mi. E. Guernavaca, Morelos, Mexico

- 0655 - checked nest found yesterday. only one young in nest - sounds like other chipping nearby. adult chipping to NW.
- 0703 - adult in to feed single young. - begging. after feeding adult perched beside of nest + pecks 5+ times at the bottom. appears to have little white on tibia + probably is eating fecal sac.
- 0708 - adult chipping to NW. ends with squeal, but not sure of participants.
- 0724 - adult in silently from NW to bush 5± ft. NW of nest. then to nest. young well above nest + begging. adult apparently missed mouth of young at first + reached down + picked insect from bottom of nest. young continued begging while adult probed bottom of nest. adult raised crown feathers then flew off to NW 5± yds where gave single chip then flew off to W + disappeared.
- 0727 - adult to nest carrying black insect. ~~For~~ 1st heard chip from nearby. put insect in mouth of begging young then seemed to push it several times. young continued to beg. Adult did not probe bottom of nest or flew off to NW when heard ^{tree} ~~tree~~ a eec squeal but sounded like given only by single bird.
- 0735 - adult silently to nest from NW. put food in mouth of begging young + then picked 3 items from bottom of nest - missed mouth of young dropped. young continued to beg while adult seemed to be looking at bottom of nest. ~~reached~~ ^{reached} down once + then turned + flew off to NW. young ceased calling before adult left.
- 0742 - adult 5± yds. NW of nest chipping. then flies to nest with bill full of insects. had at least three items + fed them one at a time.

LLWOH
1964

Melospiza bicolor

August 5. 5 mi. E. Cuernavaca, Morelos, Mexico

young continued to beg for short time + then quiet. adult chirped several times then picked up fecal sac + flew off to NW.

0752 - adult in silently with food (from NW). had light greenish caterpillar which dropped to bottom of nest + was put again into mouth of young. young continued begging for short time then stopped. started again for 5[±] seconds as adult probed bottom of nest then quiet as adult turned + flew off to NW.

0756 - adult to nest again with food. fed yg.

0800 - squawking for woodcreeper just down road from nest + attracted one of *Melospiza* - across road from nest. Another flew across road + 1st flew down to join it + heard squeal.

0805 - adult to nest with several food items. young continued to beg while adult remained on rim after exhausting food. begging more intermittent after young fed + stopped after adult reached to bottom of nest then turned + flew off.

0819 - adult silently to nest. fed young + seemed to eat a little of self. young begged until adult left after watching bottom of nest. just before left raised crown feathers, turned + flew off to NW 5[±] yds. when sat 3-4 feet up in under brush chirping, heard squeal from 30-40 yds to NW followed by squeal from adult near nest which then flew off toward 1st squeal + heard another squeal.

0836 - adult works in from 25[±] yds W of nest chirping regularly. onto nest where feeds young that continues to beg until adult leaves carrying a fecal sac. flew off to NW. 30[±] sec. later adult (other?) to nest where feeds young that begs until 5[±] sec before adult leaves.

LLW01f

1964

Melospiza kienneri

August 5

~~1964~~

San E. Cuernavaca, Morelos, Mexico

adult then off to NW. while chirping. one flies in close & chirps while other 30+ yds. NW of nest. close one flies off & has squeal ending in che, che, che notes. then quiet.

0912- adult silently to nest from NW. fed young & then remained for 1 $\frac{1}{2}$ minute tugging or pushing at bottom of nest. even changed around to S side of nest for short time.

0916- adult chirping off to NW. another to nest as chirping continues again after feeding young tugged or pushed at bottom of nest. then flew off to NW where other bird chirping & squeal. both last feedings young has continued begging while adult at nest. is intermittent after fed & possibly stimulated by movements of nest as adult's actions cause shrubs to shake very perceptibly.

0941-0943- adult silently to nest from NW. young up, gaping, & begging as adult works at bottom of nest. twice up & fed young, which then sank back down as adult moved to other side of nest & continued to work at bottom. flew off silently to NW.

0951- adult into nest silently from NW. fed young which continued to beg as adult remained perched on NW rim. adult raised crown feathers & flew off 5 \pm yds to W where chirped several times then flew farther & disappeared.

1005- adult came in while I went to check out. flew off as I walked by on road then back just as I sat down to observe. did not seem to probe at bottom but did peer at bottom then flew off silently to NW.

1010- hear adult chirping 5 \pm yds to NW of nest. To nest at 1011 where fed young then sat on rim while young continued begging until adult left at 1011.5.



LWot
1964

Melospiza kumera

August 5

5 mi. E. Guernavaca, Morelos, Mexico

1013 - adult silently to nest where fed young then worked at bottom of nest after 10 \pm sec. of sitting quietly on rim. young begging stopped while adult sat quietly. off to N

1026 - adult in silently to nest from NW. fed young & then began working on bottom of nest. settled on nest as reached across & etc something (probably a fecal sac) then crossed over to SE rim where tipped head down to bottom of nest & worked in that position until flew off silently to NW at 1034.

1045 - adult silently to nest from NW. fed young then sat quietly on rim while young begged then flew off to NW.

1047 - adult gave several chips 10 \pm yds. to ^W of nest.

1048 - adult to nest from NW. fed young then sat on rim while young continued begging for 10 \pm sec. young began again when adult probed nest. adult gave chip, turned, & flew off to NW. where adult chipping near nest.

Nest - 4 $\frac{1}{2}$ feet up 130 mm. outside depth 45 - cup depth.

outside dia - 150 x 120 mm. inside 75 mm.

of coarse stems & weed stalks with few bits of leaves. lined with short stems - all of same kind & dark brown.

young - feathers erupted on all tracts. eyes open. grips bottom of nest (pulled some lining out when removed). did not call when handled.

